

0840

ATTACHMENT P

RESULTS OF
UNDERGROUND TANK LEAK
DETECTION PROGRAM
FOR PLANT B-6

SFUND RECORDS CTR
2166-00840

SAMS

88130261

LOCKHEED CALIFORNIA COMPANY
BURBANK, CALIFORNIA

SUBMITTED TO
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
JANUARY 11, 1985

 **Lockheed-California Company**

TANK NUMBER B-6-F31

FIELD PROGRAM

One vapor monitoring well, B-6-F31-MV1, was installed to monitor subsurface conditions at Tank B-6-F31.

VAPOR MONITORING WELL B-6-F31-MV1

Monitoring Installations - Vapor Monitoring Well B-6-F31-MV1 was installed to monitor Tank B-6-F31, a 500-gallon gasoline tank used to fuel emergency pump generators. This tank was not included in the original Work Plan. Therefore, the drilling program was discussed at the site with Carol Kawamota of the RWQCB. Two unsuccessful attempts were made before the third was completed to 13 feet. The first two attempts struck a steel object 8 feet below ground surface. The actual location of the vapor monitoring well is indicated on the site map.

Sampling Intervals- Soil samples were taken from the well at a depth of 13 feet, which is consistent with the sampling intervals approved in the Work Plan for tanks of similar size and contents.

Field Observations - The medium grain size and medium brown color of the sand remained consistent throughout the entire 13 feet of the well.

Indications of possible contamination were based on observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The sample taken from Vapor Monitoring Well B-6-F31 the well was analyzed for hydrocarbons.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-F31.

Low levels of petroleum hydrocarbons (70.8 mg/kg) were detected in the sample. This level is higher than the background levels.

CONCLUSIONS

Laboratory results show that 70.8 mg/kg of the material stored in the tank were found in the composite sample, suggesting that the tank may have leaked.

TANK B-6-F31 (continued)

RECOMMENDATION

Additional subsurface sampling and analysis should be conducted to further determine whether the origin of the contamination is from the leakage of the tank and to quantify the extent of contamination.

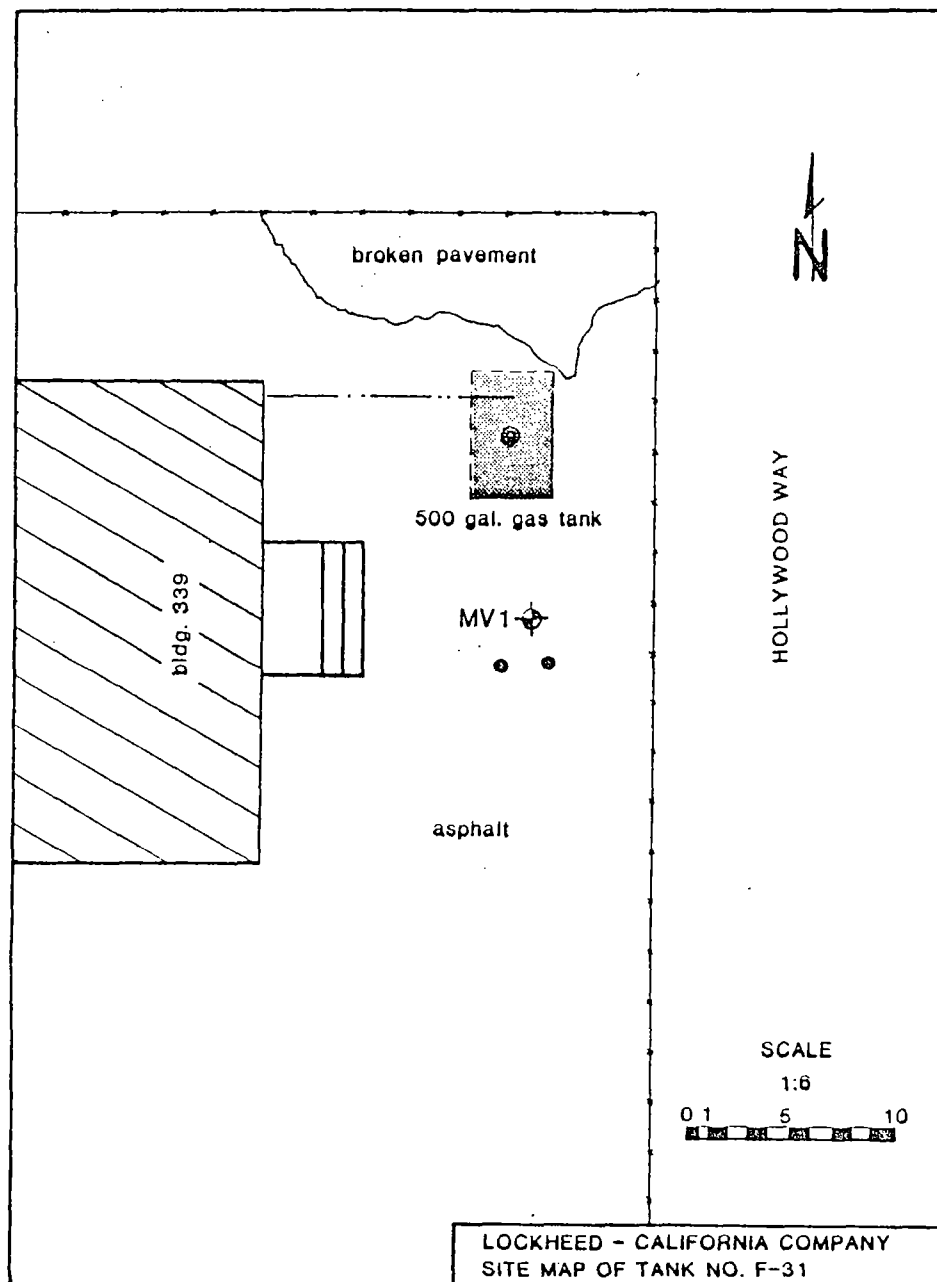
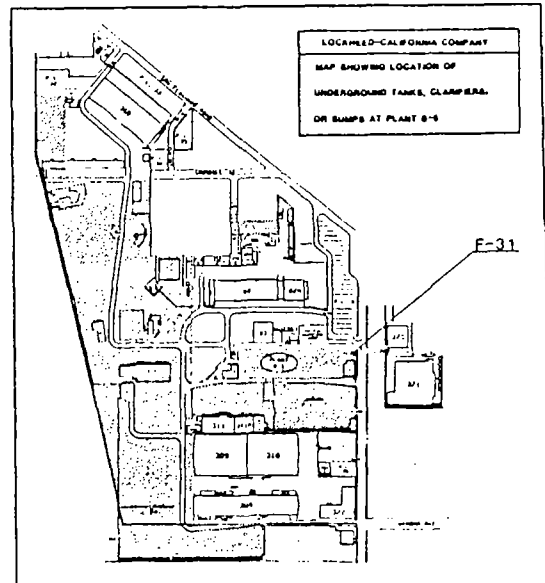
TANK NUMBER B-6-F31 supplement**ADDITIONAL INVESTIGATIONS**

The analysis of soil samples collected near Tank B-6-F31 during the initial drilling indicated low levels of petroleum hydrocarbons. To determine if the contamination in the soil is the result of tank leakage, Tank B-6-F31 was hydrostatically tested by Horner Creative Metals, Inc. of Kawkawlin, Michigan on June 11, 1985. The test is a hydrostatic evaluation and can detect leaks in the tanks and related piping systems with a level of detection of ± 0.05 gallons per hour. This is the required level of detection according to National Fire Prevention Authority (N.F.P.A.), #329. The results of the test (Appendix C) indicated that the tank is "certified tight" as is, not leaking within the accepted level of detection.

It is therefore concluded that the contamination present in the nearby soil did not originate from leakage of Tank B-6-F31. It is possible that the contamination may be the result of overfilling the tank or fugitive surface spillage that could penetrate through the broken pavement.

FURTHER RECOMMENDATIONS

Proceed with quarterly monitoring of the vapor monitoring well.



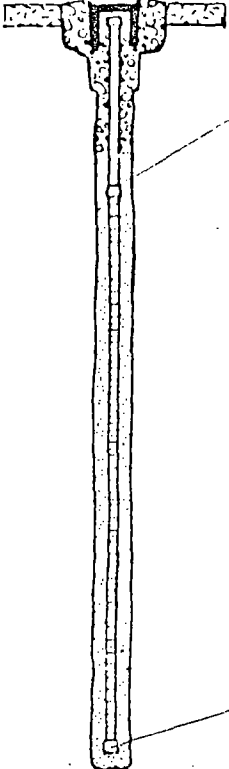
PERTINENT CONSTRUCTION AND PROGRAM DATA

| | | |
|-------------------------|--------------------------------|---------------------------------------|
| Tank No. | F-31 | |
| Plant No./Nearest Bldg. | 86/Bldg. 334 (E side) | |
| Tank: | Location | 2801 N. Hollywood Way |
| | Installation Date | UNK. |
| | Capacity, gal. | 5,000 |
| | User/Process | Pump fuel |
| | Contents (past, C&S No., date) | Diesel 68034305 |
| | (present, C&S No.) | Diesel 68034305 |
| | Construction Materials | Steel |
| | Geometry | Cylindrical |
| | Depth to Top | UNK. |
| | Depth to Invert | UNK. |
| | Diameter | 7 ft |
| | Length (1) | 17 ft |
| | Containment | None |
| | Corrosive Protection (2) | UNK. |
| | Status | In service |
| Tank Piping: | Number | UNK. |
| | Type | UNK. |
| | Construction Mat. | Steel |
| Site: | Paving Material/Thickness | Asphalt/5 in |
| | Appearance | Area of disturbed asphalt around site |
| | Surface Contamination | None |
| Drilling Program: | Rig Type/Requirements (3) | H.S. Auger |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | 1 |
| | Sample Depths | MVI/13 ft |
| | Completion Interval | MVI/3-12.9 ft |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | 1 |
| | Parameters | Hydrocarbons |

PERTINENT CONSTRUCTION AND PROGRAM DATA

0840

| | | |
|-------------------------|--------------------------------|---------------------------------------|
| Tank No. | F-31 | |
| Plant No./Nearest Bldg. | Bldg. 339 (E Side) | |
| Tank: | Location | 2601 N. Hollywood Hwy |
| | Installation Date | UNK |
| | Capacity, gal. | 5,000 |
| | User/Process | Pump fuel |
| | Contents (past, CAS No., date) | Unsel 08334305 |
| | (present, CAS No.) | Unsel 08334305 UNK |
| | Construction Materials | Steel |
| | Geometry | Cylindrical |
| | Depth to Top | UNK |
| | Depth to Invert | UNK |
| | Diameter | 7 ft |
| | Length (ft) | 17 ft |
| | Containment | None |
| | Corrosive Protection (2) | UNK |
| | Status | In service |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | Steel |
| Site: | Paving Material/Thickness | Asphalt/5 in |
| | Appearance | Area of disturbed asphalt around site |
| | Surface Contamination | None |
| Drilling Program: | Log type/requirements (3) | M.S. Huger |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | 1 |
| | Sample Depths | NV1/13 ft |
| | Completion Interval | NV1/5-12.4 ft |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | 1 |
| | Parameters | Hydrocarbons |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------|--------------|-------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Silty sand, fine to coarse grain, some pebble, moist, brown | | Silty sand, fine to coarse grain, some pebble, moist, brown |
| | - 2 - | | | |
| | - 3 - | Pebbles 3 to 4 in thick and cobble | | Pebbles 3 to 4 in thick and cobble |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | 34 | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0-3 ft
- Screened 2-in I.D. PVC pipe, 3-12.9 ft
- Concrete, 0-2 ft
- Bentonite, 2-3 ft
- Clean sand, 3-14 ft

TANK NO. B-6-F31MONITORING WELL NO. B-6-F31-MV1

TANK NUMBER B-6-F34 supplement

NOTE: Tank B-6-O was not a waste solvent tank as originally thought but a light starter fluid, a mix of diesel and gasoline. Thus Tank B-6-O was recategorized as a fuel tank and renamed B-6-F34. The initial work performed however, has not been changed yet (see Tank Number B-6-O).

ADDITIONAL INVESTIGATIONS

The analysis of soil samples collected near Tank B-6-F34 during the initial drilling indicated low levels of petroleum hydrocarbons. To determine if the contamination in the soil is the result of tank leakage, Tank B-6-F34 was hydrostatically tested by Horner Creative Metals, Inc. of Kawkawlin, Michigan on May 31, 1985. The test is a hydrostatic evaluation and can detect leaks in the tanks and related piping systems with a level of detection of ± 0.05 gallons per hour. This is the required level of detection according to National Fire Prevention Authority (N.F.P.A.), #329. The results of the test (Appendix C) indicated that the tank is "certified tight" as is, not leaking within the accepted level of detection.

It is therefore concluded that the contamination present in the nearby soil did not originate from leakage of Tank B-6-F34. It is possible that the contamination may be the result of overfilling the tank or fugitive surface spillage.

FURTHER RECOMMENDATIONS

Proceed with quarterly monitoring of the vapor monitoring wells.

TANK NUMBER B-6-F32

FIELD PROGRAM

Two vapor monitoring wells, B-6-F3-MV1 and B-6-F3-MV2, were installed to monitor subsurface conditions at Tanks B-6-F32 and B-6-F3 which are located very close together. The approved Work Plan listed one tank labeled B-6-F3 at this location. It was later found, however, that there are actually two tanks of different orientation, the contents of which are similar, at this location. The westernmost tank retained the label B-6-F3 and the easternmost tank was labeled B-6-F32. The southern end of B-6-F32 is monitored by the well B-6-F3-MV1. This well is discussed under Tank B-6-F3.

Sampling Intervals - See discussion under Tank Number B-6-F3.

Field Observations - There were no indications of contamination. See discussion under Tank Number B-6-F3.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The samples taken from Vapor Monitoring Wells B-6-F3-MV1 and B-6-F3-MV2 were composited and analyzed for hydrocarbons.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-F3. The level of hydrocarbons found in the samples was below the average background samples levels.

CONCLUSIONS

Both field and laboratory analysis results show that the suspected contaminants were below the average background levels. It is concluded that the tank is not leaking.

RECOMMENDATION

Proceed with quarterly monitoring of the wells.

TABLE B-6-F33: CHEMICAL ANALYSES

| PARAMETER | BACK | TTLC | SAMPLE I.D. |
|-------------------------------|--------|---------|-------------|
| | GROUND | | B-6-F33 |
| | SAMPLE | | MV1 & MV2 |
| | | | COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | N.T. |
| Benzene | <0.2 | | |
| Carbon Disulfide | | | |
| 1,1 Dichloroethene | <0.1 | | |
| Methylene Chloride | <0.5 | | |
| Perchloroethylene | <0.4 | | |
| 1,1,1 Trichloroethane | <0.2 | | |
| Trichloroethylene | <0.3 | * 2,040 | |
| Chloroform | <0.1 | | |
| Toluene | <0.4 | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | 17.0 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. |
| CAM Metals (ug/kg) | | | N.T. |
| Antimony | <2.5 | 500 | |
| Arsenic | 12.7 | 500 | |
| Barium | 43.4 | 10,000 | |
| Beryllium | <1.0 | 75 | |
| Cadmium | <0.5 | 100 | |
| Chromium (Total) | 6.3 | 2,500 | |
| Cobalt | 4.3 | 8,000 | |
| Copper | 8.6 | 250 | |
| Lead | <2.5 | 1,000 | |
| Mercury | <0.1 | 20 | |
| Molybdenum | 6.9 | 3,500 | |
| Nickel | 4.1 | 2,000 | |
| Selenium | <2.5 | 100 | |
| Silver | <2.5 | 500 | |
| Thallium | <2.5 | 700 | |
| Vanadium | 12.7 | 2,400 | |
| Zinc | 21.4 | 2,500 | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. |
| Others | | | N.T. |
| pH | 8.19 | N.A. | |
| Chloride (ug/kg) | N.T. | N.A. | |
| Cyanide (ug/kg) | N.T. | N.A. | |
| Fluoride (ug/kg) | N.T. | 18,000 | |
| Nitrate (ug/kg) | N.T. | N.A. | |
| Sulfate (ug/kg) | N.T. | N.A. | |

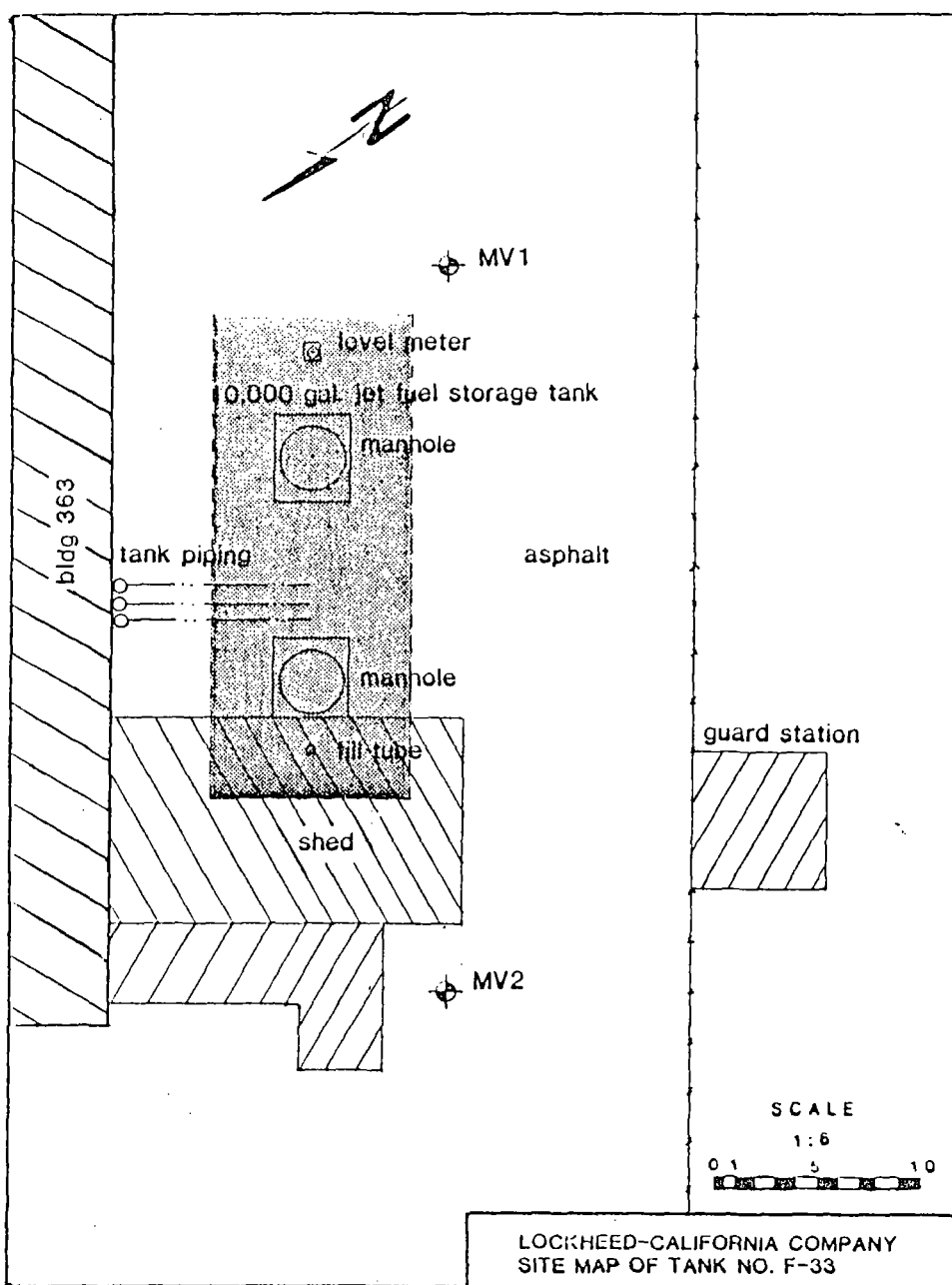
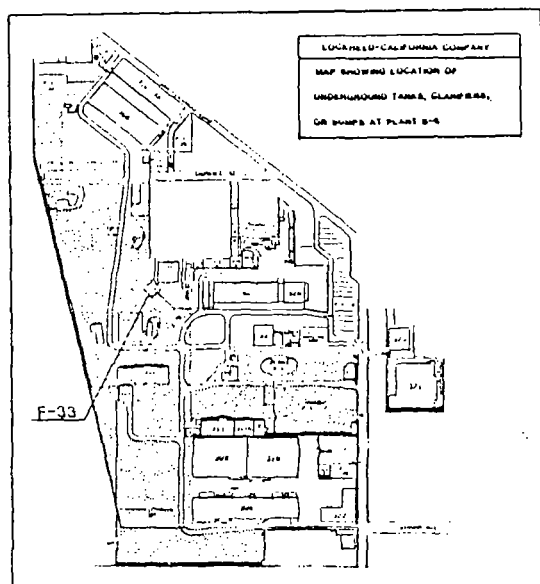
N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

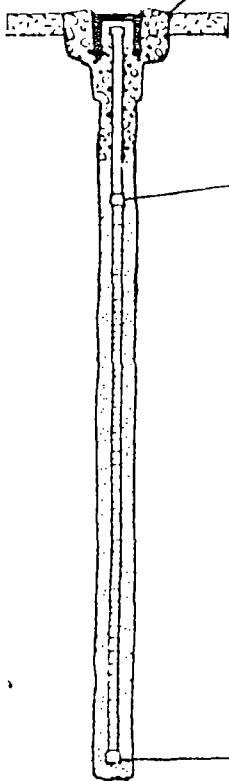
TTLC - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg



PERTINENT CONSTRUCTION AND PROGRAM DATA

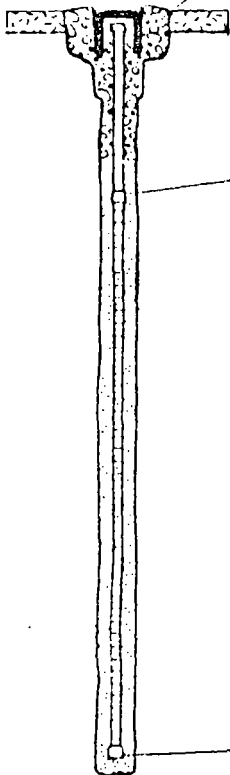
| | | |
|-------------------------|--------------------------------|----------------------------|
| Tank No. | F-33 | |
| Plant No./Nearest Bldg. | 66/Bldg. 333 (SW Side) | |
| Tank: | Location | 2801 N. Hollywood Way |
| | Installation Date | UNK |
| | Capacity, gal. | 10,000 |
| | User/Process | UNK |
| | Contents (past, CAS No., date) | UNK |
| | (present, CAS No.) | Jet-A fuel |
| | Construction Materials | Steel |
| | Geometry | Cylindrical |
| | Depth To Top | UNK |
| | Depth To Invert | UNK |
| | Diameter | 9 ft |
| | Length (l) | 23 ft |
| | Containment | None |
| | Corrosive Protection (2) | UNK |
| | Status | In service |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | Steel |
| Sites: | Paving Material/Thickness | Asphalt/7 in |
| | Appearance | Good |
| | Surface Contamination | None |
| Drilling Program: | Log Type/Requirements (3) | H.S. Huger |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | 2 |
| | Sample Depths | MV1/14 ft MV2/14 ft |
| | Completion Interval | MV1/5-14 ft MV2/5-14 ft |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | 2 |
| | Parameters | Hydrocarbons |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|------------------------------------------------------------|--------------|------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Sand, medium to coarse grain, occasional gravel and cobble | | Sand, medium to coarse grain, occasional gravel and cobble |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | 50 | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0-5 ft
- Screened 2-in I.D. PVC pipe, 5-14 ft
- Concrete, 0-3 ft
- Bentonite, 3-4 ft
- Clean sand, 4-14 ft

TANK NO. B-6-F33MONITORING WELL NO. B-6-F33-MV1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------|--------------|-------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Sand, medium to coarse grain, occasional gravel | | Sand, medium to coarse grain, occasional gravel |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | Occasional cobble | | Occasional cobble |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | 50 | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0-5 ft
- Screened 2-in I.D. PVC pipe, 5-14 ft
- Concrete, 0-3 ft
- Bentonite, 3-4 ft
- Clean sand, 4-14 ft

TANK NO. B-6-F33MONITORING WELL NO. B-6-F33-MV2

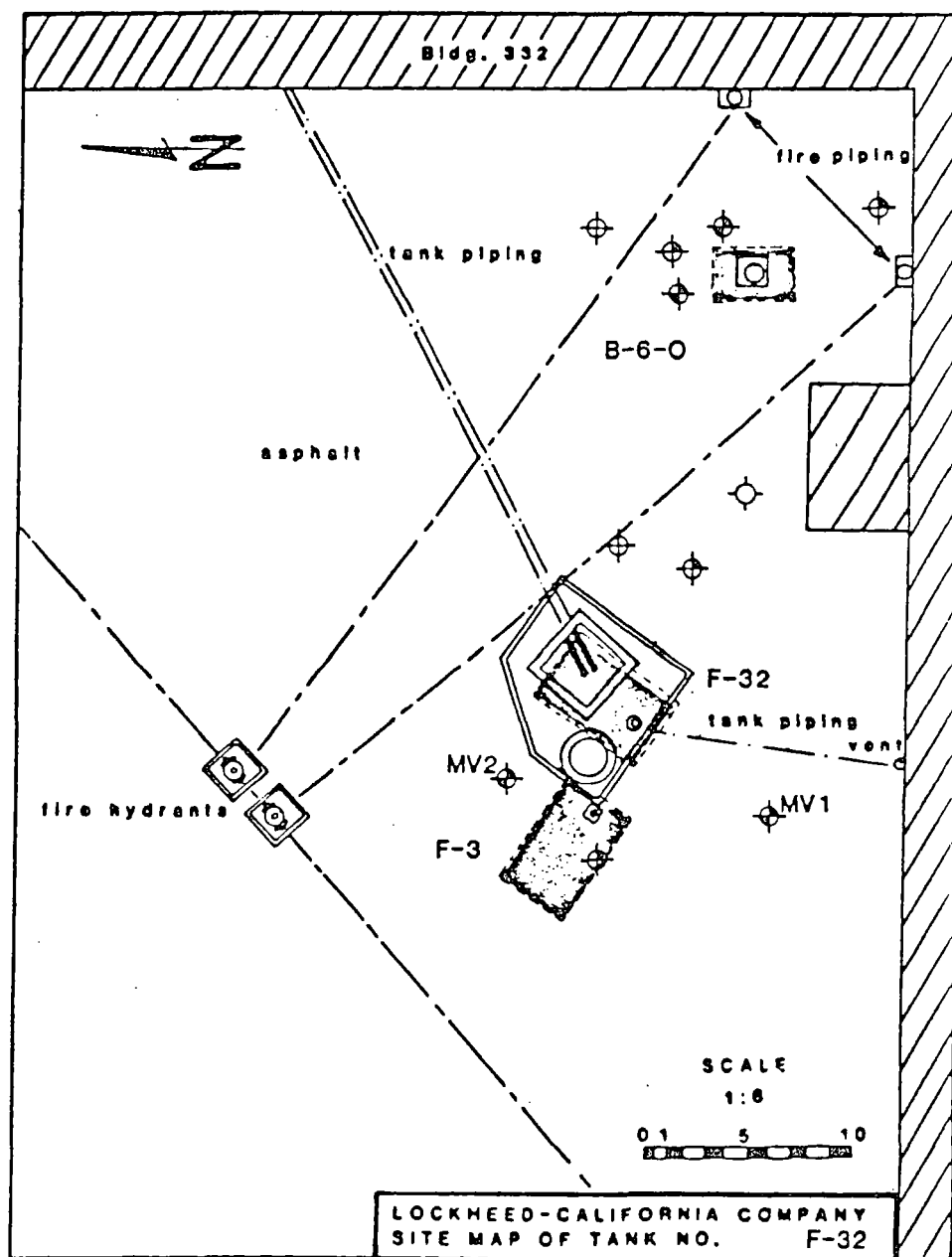
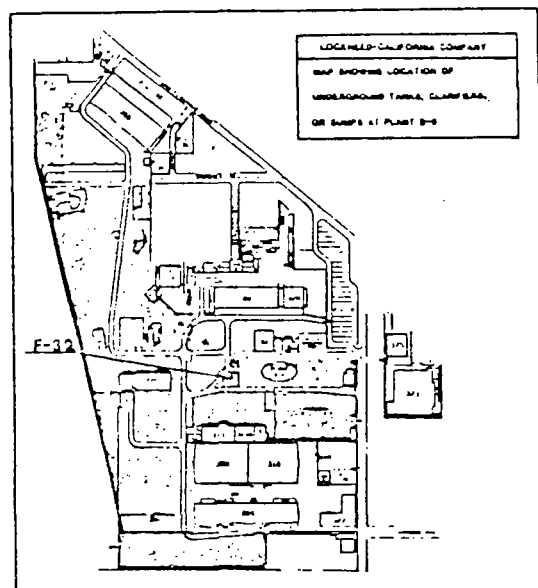


TABLE B-6-F31: CHEMICAL ANALYSES

| PARAMETER | | | SAMPLE I.D. |
|-------------------------------|--------|---------|-------------|
| | | | ----- |
| | BACK | ITLC | B-6-F31 |
| | GROUND | | MV1 |
| | SAMPLE | | 13-14 ft. |
| Volatile Organics (ug/kg) | | N.A. | N.T. |
| Benzene | <0.2 | | |
| Carbon Disulfide | | | |
| 1,1 Dichloroethene | <0.1 | | |
| Methylene Chloride | <0.5 | | |
| Perchloroethylene | <0.4 | | |
| 1,1,1 Trichloroethane | <0.2 | | |
| Trichloroethylene | <0.3 | * 2,040 | |
| Chloroform | <0.1 | | |
| Toluene | <0.4 | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | 70.8 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. |
| CAM Metals (ug/kg) | | | N.T. |
| Antimony | <2.5 | 500 | |
| Arsenic | 12.7 | 500 | |
| Barium | 43.4 | 10,000 | |
| Beryllium | <1.0 | 75 | |
| Cadmium | <0.5 | 100 | |
| Chromium (Total) | 6.3 | 2,500 | |
| Cobalt | 4.3 | 8,000 | |
| Copper | 6.6 | 250 | |
| Lead | <2.5 | 1,000 | |
| Mercury | <0.1 | 20 | |
| Molybdenum | 6.9 | 3,500 | |
| Nickel | 4.1 | 2,000 | |
| Selenium | <2.5 | 100 | |
| Silver | <2.5 | 500 | |
| Thallium | <2.5 | 700 | |
| Vanadium | 12.7 | 2,400 | |
| Zinc | 21.4 | 2,500 | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. |
| Others | | | N.T. |
| pH | 8.19 | N.A. | |
| Chloride (ug/kg) | N.T. | N.A. | |
| Cyanide (ug/kg) | N.T. | N.A. | |
| Fluoride (ug/kg) | N.T. | 18,000 | |
| Nitrate (ug/kg) | N.T. | N.A. | |
| Sulfate (ug/kg) | N.T. | N.A. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

ITLC - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | | |
|-------------------------|--------------------------------|--------------------------------|
| Tank No. | F-32 | |
| Plant No./Nearest Bldg. | B6/Bldg. 332 (NW Side) | |
| Tank: | Location | 2805 N. Hollywood Way |
| | Installation Date | Pre-1945 |
| | Capacity, gal. | 2,500 |
| | User/Process | Boiler fuel |
| | Contents (past, CAS No., date) | Diesel #2 Boiler 68334305 |
| | (present, CAS No.) | Diesel #2 Boiler 68334305 |
| | Construction Materials | Steel |
| | Geometry | Cylindrical |
| | Depth To Top | 4 ft |
| | Depth To Invert | 9.15 ft |
| | Diameter | 5.15 ft |
| | Length (1) | 11 ft |
| | Containment | None |
| | Corrosive Protection (2) | Ext. coated |
| | Status | in service |
| Tank Piping: | Number | UNK. |
| | Type | UNK. |
| | Construction Mat. | Steel |
| Sites: | Paving Material/Thickness | Asphalt |
| | Appearance | |
| | Surface Contamination | None |
| Drilling Program: | Rig Type/Requirements (3) | H.S. Auger |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | |
| | Sample Depths | NOTE: REFERENCE TO F-32 MV1 |
| | Completion Interval | |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | REF. TO B-3-F3 |
| | Parameters | |

TANK NUMBER B-6-F33

FIELD PROGRAM

Two vapor monitoring wells, B-6-F33-MV1 and B-6-F33-MV2, were installed to monitor subsurface conditions at fuel Tank B-6-F33.

VAPOR MONITORING WELL B-6-F33-MV1

Monitoring Installations - Vapor Monitoring Well B-6-F33-MV1 was installed as indicated on the site map. This tank, a 10,000 gallon proprietary fuel tank, was not included in the approved Work Plan. The drilling program for the tank was discussed in the field with Mr. Al Novak of the RWQCB.

Sampling Intervals - Soil samples were taken from the well at a depth of 14 feet.

Field Observations - The medium to coarse grain size and medium brown color of the sand remained consistent throughout the entire 14 feet of the well. The occurrence of cobbles remained sporadic throughout the well.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

VAPOR MONITORING WELL B-6-F33-MV2

Monitoring Installations - Vapor Monitoring Well B-6-F33-MV2 was installed as indicated on the site map.

Sampling Intervals - Soil samples were taken from the well at a depth of 14 feet.

Field Observations - The medium to coarse grain size and medium brown color of the sand remained consistent throughout the entire 14 feet of the well. The occurrence of cobbles remained sporadic throughout the well.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The samples taken from Vapor Monitoring Wells B-6-F33-MV1 and B-6-F33-MV2 were composited and analyzed for hydrocarbons.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-F33.

Low levels of petroleum hydrocarbons (17 mg/kg) were detected in the sample.

TANK B-6-F33 (continued)

CONCLUSIONS

Based upon field and laboratory analysis and field observations, it is concluded that the tank is not leaking. The low concentrations (17 mg/kg) of petroleum hydrocarbons are more likely due to surface spills and other surface sources. If the tank were leaking, the levels of contaminants in the soil would be expected to be much higher.

RECOMMENDATION

Proceed with quarterly monitoring of the wells.

APPENDIX B
NON-FUEL TANKS

LEGEND

0840

SUMP WITH PUMP-OUT PORT



3 STAGE CLARIFIER



TANK LOCATION



BUILDING OR LARGE PERMANENT STRUCTURE



ABOVE GROUND PIPING



UNDERGROUND UTILITIES:

—— — ELECTRIC LINE

—— - - - WATER PIPE

—— - - - SEWER PIPE

—— - - - NATURAL GAS LINE

—— - - - TANK PIPING

—— - - - UNIDENTIFIED PIPING

—— — COMPRESSED AIR

PROGRAM ACTIVITIES: AS PLANNED



40-FOOT SOIL BORING



VAPOR MONITORING WELL



SUCTION LYSIMETER

AS COMPLETED



40-FOOT SOIL BORING



VAPOR MONITORING WELL



SUCTION LYSIMETER



VAPOR MONITORING WELL/SUCTION LYSIMETER

TANK NUMBER B-6-B

FIELD PROGRAM

Two borings and two suction lysimeters were drilled/installed to monitor subsurface conditions at boiler blowdown Tank B-6-B.

BORING B-6-B-B1

Monitoring Installations - Boring B-6-B-B1 was drilled slightly south of the approved location due to rig access problems, and the inability to drill through the thickness of concrete present at the originally approved location. Two locations were drilled before a successful depth was reached. The first attempt struck a steel pipe 11 feet below ground surface. Both the actual and approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples were taken from Boring B-6-B-B1 at depths of 5, 17, 22, 30, and 40 feet, as approved in the Work Plan.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the first 30 feet of Boring B-6-B-B1. At 30 feet the sand became coarser, and the gravel and cobble fraction increased. The frequency of cobbles increased at 4 feet and continued to 10 feet. From 30 through 40 feet the color changed slightly from brown to variegated light brown which corresponds with the general grain size increase at the same depth.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil from just below the surface to 30 feet had a strong odor indicating possible contamination. The odor disappeared completely at 35 feet.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in three, 55-gallon drums approved for storage of hazardous waste.

BORING B-6-B-B2/SUCTION LYSIMETER B-6-B-SL1

Monitoring Installations - Boring B-6-B-B2 was drilled north and west of the approved location due to rig access problems and proximity to overhead power lines. The slant boring, as was approved in the Work Plan, was not completed due to the preponderance of cobbles in the subsurface. The inability to predict the direction of deflection of the auger stem after it strikes a cobble presents an additional element of danger in an area of unknown underground pipe systems. Boring B-6-B-B2 replaces the slant boring. The boring was backfilled to 12 feet and Suction Lysimeter B-6-B-SL1 placed at 11 feet as shown in the construction diagram.

TANK B-6-B (continued)

Sampling Intervals - Soil samples were to have been collected at depths of 6, 17, 22, 30 and 40 feet, according to the Work Plan. However, interference from intermittent cobbles necessitated shifting the sample intervals to 5, 10, 18, 32, and 40 feet. Based on the absence of layers of low permeability in the upper portion of the soil horizons, and the loose, highly conductive nature of sand that predominates the lithology, it is unlikely that a slight variance in sampled intervals will significantly alter the chemical concentration profile of the soil. The 22-foot sample was not attempted due to a large number of cobbles at that depth.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the entire 40 feet of Boring B-6-B-B2. The frequency of cobbles increased at 24 feet and continued to 28 feet.

There were no indications of contamination.

SUCTION LYSIMETER B-6-B-SL2

Monitoring Installations-Suction Lysimeter B-6-B-SL2 was installed slightly south and east of the approved location due to rig access problems, and proximity to overhead power lines.

Sampling Intervals - Soil samples were taken at a depth of 12 feet, as approved in the Work Plan.

Field Observations - The medium grain size and medium brown color of the sand remained consistent throughout the entire 12 feet of the suction lysimeter.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The liquid sample collected from the tank was analyzed as approved in the Work Plan. Based on field observations indicating the potential presence of organic contaminants in the soil samples from Boring B-6-B-SL1, the soil samples were analyzed for volatile organics. Individual depth samples from Boring B-6-B were analyzed for pH.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-B. The levels of metals found in the liquid sample were all in the sub to low range. A total of four volatile organics were detected in the soil samples, suggesting that the soils are contaminated. The volatile organics concentrations levels range from a low of 14 ug/mg of 1,2 dichloroethene to a high of 34 mg/kg of carbitol.

Tank B-6-B (continued)

CONCLUSIONS

Laboratory results show medium concentrations of alcohols (34 mg/kg) and traces of halocarbons, indicating the soils were contaminated. The tank was installed in 1979 and has been used as a boiler blowdown storage tank. There is no record/indication that the tank has been used for storing any of the alcohols found in the soil samples. Field observations show evidence of overflowing from the tank. Thus, it is likely that the origin of contamination is from other sources such as surface spills rather than leakage from the tank.

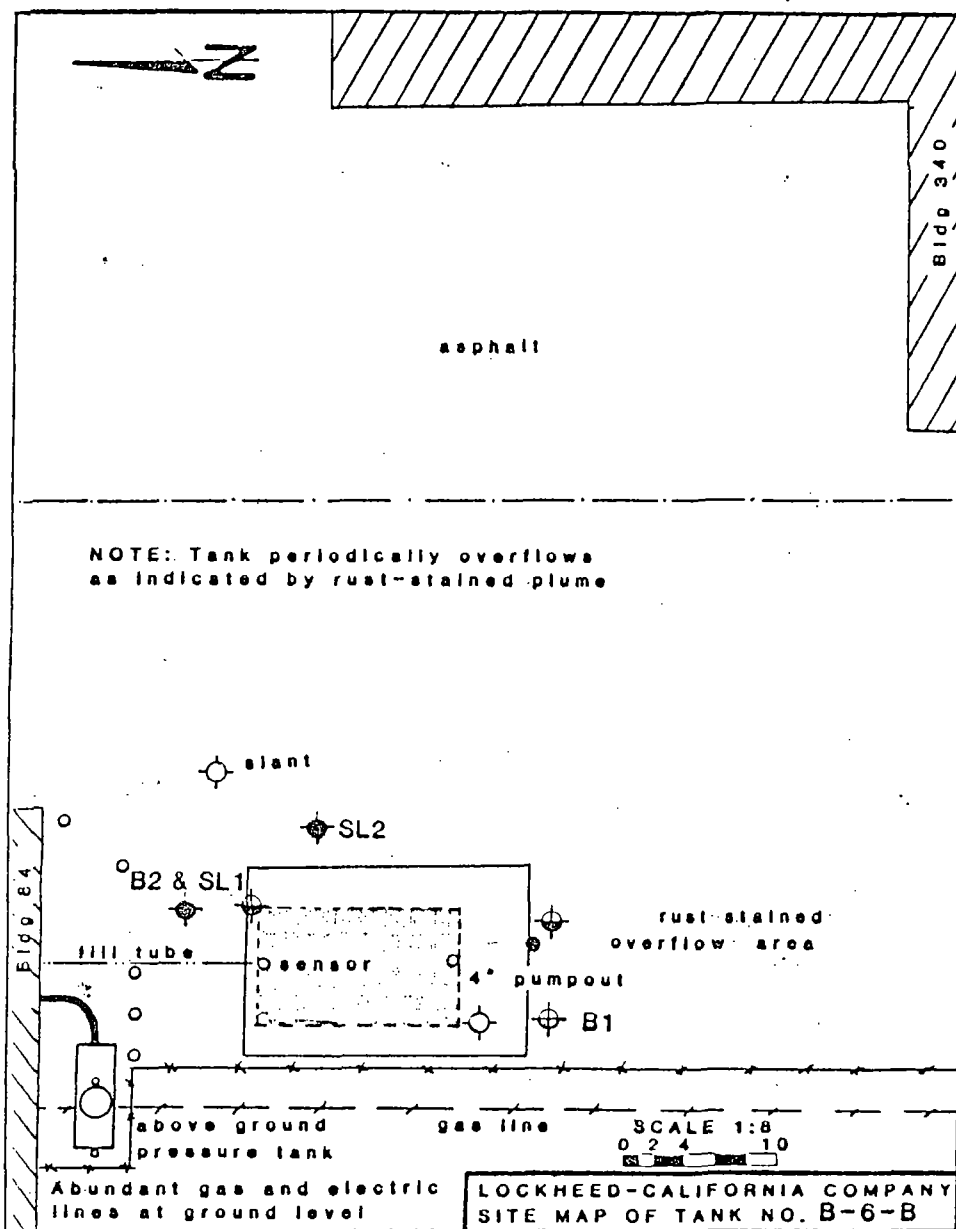
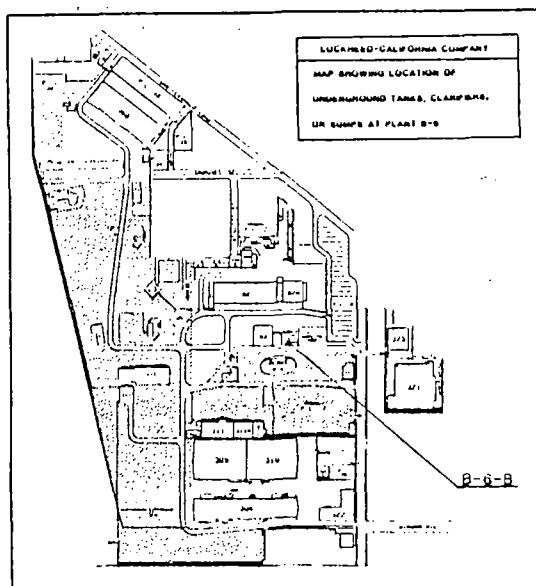
RECOMMENDATION

Proceed with quarterly monitoring of the wells.

TANK NUMBER B-6-B supplement

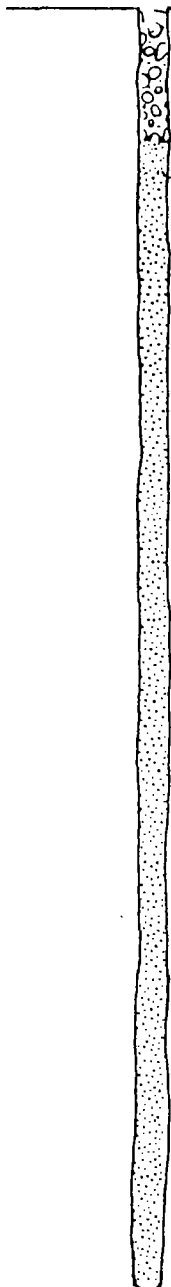
ADDITIONAL INVESTIGATIONS

The analysis of soil samples collected near Tank B-6-B during the initial drilling indicated low to moderate levels of several volatile organic substances. To determine if the contamination in the soil is the result of tank leakage, Tank B-6-B was scheduled for a tank integrity test. However, the tank was only one fifth full during field operations. Thus, the tank integrity test will be rescheduled once the tank is full.



PERTINENT CONSTRUCTION AND PROGRAM DATA

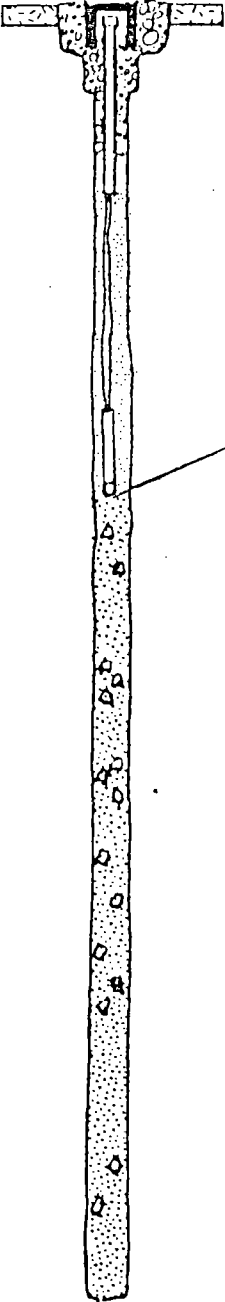
| | | |
|-------------------------|--------------------------------|----------------------------------------------------|
| Tank No. | | 6-6-B |
| Plant No./Nearest Bldg. | | B6/Bldg. 64 (S Side) |
| Tank: | Location | 2801 N. Hollywood Way |
| | Installation Date | 1975 |
| | Capacity, gal. | 5,000 |
| | Use/Process | Boiler blowdown |
| | Contents (past, CAS No., date) | UNK |
| | (present, CAS No.) | Concentrated intake water |
| | Construction Materials | Mild steel |
| | Geometry | Cylindrical |
| | Depth to Top | 4.6 ft |
| | Depth to Invert | 12.35 ft |
| | Diameter | 7.75 ft |
| | Length (l) | 15.5 ft |
| | Containment | none |
| | Corrosive Protection (2) | Int. coated/Ext. painted |
| | Status | UNK |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | UNK |
| Site: | Paving Material/Thickness | Asphalt |
| | Appearance | Asphalt stained b, iron solution |
| | Surface Contamination | See above |
| Drilling Program | Rig Type/Requirements (3) | H.S. Auger |
| | Borings (No.) | 2 |
| | Sample Depths | B1/5, 17, 22, 30, 40 ft B2/5, 10, 18, 32, 40 ft |
| | Vapor Wells/Lysimeters (No.) | 2 |
| | Sample Depths | SL1/12 ft SL2/REF. TO B2 |
| | Completion Interval | SL1/10 ft SL2/11 ft |
| | Laboratory Program (4) | |
| | No. of Tank Content Samples | 2 |
| | Parameters | CAM, pH |
| | No. of Tank Soil Samples | 8 (Comp.) |
| | Parameters | pH, Sulfate, Vol. Org. |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|--------------------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, sand to cobbles, red brown, strong solvent odor |
| | - 4 - | | | |
| | - 6 - | | 40 | |
| | - 8 - | | | |
| | - 10 - | | | |
| | - 12 - | | | |
| | - 14 - | | | cobbles decreasing with depth |
| | - 16 - | | | |
| | - 18 - | | 45 | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 40 | Sand, medium grain, w/pebbles, variegated, slight odor |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | 50 | Color change |
| | - 32 - | | | odor fades with depth |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, 0.5-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-40 ft

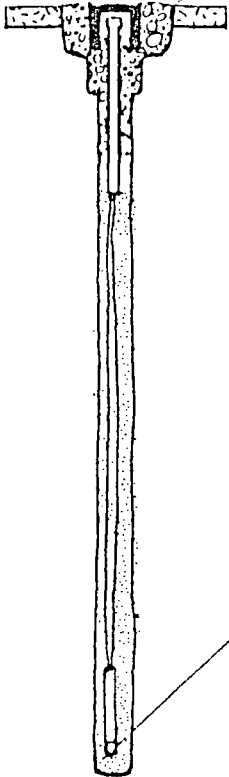
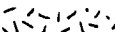












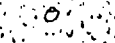
TANK NO. B-6-BBORING NO. B-6-B-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|---------|--------------|--------------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt Sand, medium to coarse grain, brown, occasional cobbles |
| | - 2 - | | | |
| | - 4 - | | | |
| | - 6 - | | 30 | |
| | - 8 - | | | |
| | - 10 - | | 40 | |
| | - 12 - | | | |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | 40 | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | | increasing cobbles |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | 45 | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Suction lysimeter at 11 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand 12-40 ft

TANK NO. B-6-BBORING NO. B-6-B-B2

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------|--------------------------|
|  | - 0 - |  | | - Asphalt |
| | - 1 - |  | | - Sand, medium to coarse |
| | - 2 - |  | | - brown to variegated, |
| | - 3 - |  | | - w/pebbles & cobbles |
| | - 4 - |  | | |
| | - 5 - |  | | |
| | - 6 - |  | | |
| | - 7 - |  | | |
| | - 8 - |  | | |
| | - 9 - |  | | |
| | - 10 - |  | | |
| | - 11 - |  | | |
| | - 12 - |  | 50 | |
| | - 13 - |  | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at 10 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-7 ft
- Clean sand & native mix 7-12 ft

TANK NO. B-6-BSUCTION LYSIMETER NO. B-6-B-SL1

TABLE B-6-B: CHEMICAL ANALYSES

| PARAMETER | | | SAMPLE I.D. | | | | | | I.D. |
|-------------------------------|--------|--------|-------------|-------|--------|--------|--------|--------|-------|
| | | | | | | | | | |
| | BACK | TILC | B-6-B | B-6-B | B-6-B | B-6-B | B-6-B | B-6-B | |
| | GROUND | | LIQUID | B2 | B2 | B2 | B2 | SL2 | |
| | SAMPLE | | | 5 ft. | 18 ft. | 32 ft. | 40 ft. | 12 ft. | |
| Volatile Organics (ug/kg) | | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | | |
| Acetone | N.T. | | | | | | | | <1.0 |
| Carbon Tetrachloride | N.T. | | | | | | | | 0.047 |
| Carbital | N.T. | | | | | | | | 34.0 |
| Isopropyl Alcohol | N.T. | | | | | | | | <0.1 |
| 2-Hexanone | N.T. | | | | | | | | <5.0 |
| 1,2-Dichloroethylene | N.T. | | | | | | | | 0.014 |
| Ethyl Acetate | N.T. | | | | | | | | <0.3 |
| Cellusolve Acetate | N.T. | | | | | | | | 15.0 |
| Methyl Ethyl Ketone | N.T. | | | | | | | | <2.0 |
| Methyl Isobutyl Ketone | N.T. | | | | | | | | <1.0 |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| CAM Metals (ug/kg) | | | | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Antimony | <2.5 | 500 | N.D. | | | | | | |
| Arsenic | 12.7 | 500 | N.D. | | | | | | |
| Barium | 43.4 | 10,000 | 0.45 | | | | | | |
| Beryllium | <1.0 | 75 | N.D. | | | | | | |
| Cadmium | <0.5 | 100 | 0.05 | | | | | | |
| Chromium (Total) | 6.3 | 2,500 | 0.01 | | | | | | |
| Cobalt | 4.3 | 8,000 | 0.12 | | | | | | |
| Copper | 8.6 | 250 | 0.95 | | | | | | |
| Lead | <2.5 | 1,000 | 0.09 | | | | | | |
| Mercury | <0.1 | 20 | 0.0003 | | | | | | |
| Molybdenum | 6.9 | 3,500 | N.D. | | | | | | |
| Nickel | 4.1 | 2,000 | 0.66 | | | | | | |
| Selenium | <2.5 | 100 | 0.0004 | | | | | | |
| Silver | <2.5 | 500 | 0.028 | | | | | | |
| Thallium | <2.5 | 700 | 0.13 | | | | | | |
| Vanadium | 12.7 | 2,400 | 0.07 | | | | | | |
| Zinc | 21.4 | 2,500 | 6.54 | | | | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Others | | | | | | | | | |
| pH | 8.19 | N.A. | 2.97 | 6.70 | 7.40 | 7.10 | 7.90 | 7.60 | |
| Chloride (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Fluoride (ug/kg) | N.T. | 18,000 | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Nitrate (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Sulfate (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TILC - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

TANK NUMBER B-6-C

As initially approved, this facility was to be inspected. Further discussion with Lockheed personnel, however, indicated that the necessary arrangements required for inspections would significantly impact normal process operations. Alternate monitoring programs have been discussed recently with Mr. Al Novak, RWQCB, and will likely involve drilling, sampling, and installation of a monitoring device such as a vapor monitoring well or a suction lysimeter. Exact program plans will be submitted for this facility by February 1, 1985.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|---------------------------------------------|-----------------------------|
| Tank No. | 6-6-C |
| Plant No./Nearest Bldg. | 60/Bldg. 349 (Inside-5) |
| Tank: Location | 2801 N. Hollywood Way |
| Installation Date | 1981 |
| Capacity, gal. | 1,000 |
| Use/Process | Emergency spill containment |
| Contents (past, CAS No., date) | UNK |
| (present, CAS No.) | Empty |
| Construction Materials | mild steel |
| Geometry | rectangular |
| Depth to Top | UNK |
| Depth to Invert | 3.6 ft |
| Diameter | See Map |
| Length (ft) | See Map |
| Containment | None |
| Corrosive Protection (2) | Int. coated/Ext. painted |
| Status | In service |
| Tank Piping: Number | UNK |
| Type | UNK |
| Construction Mat. | UNK |
| Site: Paving Material/Thickness | UNK |
| Appearance | |
| Surface Contamination | UNK |
| Drilling Program: Rig Type/Requirements (3) | Inspection |
| Borings (No.) | 0 |
| Sample Depths | |
| Vapor Wells/Lysimeters (No.) | 0 |
| Sample Depths | |
| Completion Interval | |
| Laboratory Program (4) | |
| No. of Tank Content Samples | 0 |
| Parameters | |
| No. of Tank Soil Samples | 0 |
| Parameters | |

TANK NUMBER B-6-E

As initially approved, this facility was to be inspected. Further discussion with Lockheed personnel, however, indicated that the necessary arrangements required for inspections would significantly impact normal process operations. Alternate monitoring programs have been discussed recently with Mr. Al Novak, RWQCB, and will likely involve drilling, sampling, and installation of a monitoring device such as a vapor monitoring well or a suction lysimeter. Exact program plans will be submitted for this facility by February 1, 1985.

A liquid sample of the tank's contents was collected for laboratory analysis. The results are summarized in Table B-6-E.

TABLE B-6-E: CHEMICAL ANALYSES

| PARAMETER | | | SAMPLE I.D. | |
|-------------------------------|--------|--------|-------------|--|
| | | | | |
| | BACK | TTL | B-6-E | |
| | GROUND | | LIQUID | |
| | | | | |
| Organic Solvents (mg/kg) | | N.A. | | |
| Isobutyl Acetate | N.T. | | N.D. | |
| Acetone | N.T. | | 4.3 | |
| Methanol | N.T. | | TRACE | |
| Isobutyl Alcohol | | | N.D. | |
| Isopropanol | N.T. | | TRACE | |
| Methyl Ethyl Ketone | N.T. | | 3.6 | |
| Methyl Isobutyl Ketone | N.T. | | N.D. | |
| | | | | |
| Petroleum Hydrocarbon (mg/kg) | N.T. | N.A. | N.T. | |
| Oil & Grease (mg/kg) | <1.0 | N.A. | N.T. | |
| | | | | |
| CAM Metals (mg/kg) | | | | |
| Antimony | <2.5 | 500 | N.D. | |
| Arsenic | 12.7 | 500 | N.D. | |
| Barium | 43.4 | 10,000 | 0.41 | |
| Beryllium | <1.0 | 75 | N.D. | |
| Cadmium | <0.5 | 100 | 0.01 | |
| Chromium (Total) | 6.3 | 2,500 | 0.40 | |
| Cobalt | 4.3 | 8,000 | 0.01 | |
| Copper | 8.6 | 250 | 0.02 | |
| Lead | <2.5 | 1,000 | N.D. | |
| Mercury | <0.1 | 20 | 0.0004 | |
| Molybdenum | 6.9 | 3,500 | N.D. | |
| Nickel | 4.1 | 2,000 | 0.0004 | |
| Selenium | <2.5 | 100 | 0.0004 | |
| Silver | <2.5 | 500 | N.D. | |
| Thallium | <2.5 | 700 | N.D. | |
| Vanadium | 12.7 | 2,400 | 0.07 | |
| Zinc | 21.4 | 2,500 | 0.35 | |
| | | | | |
| Aluminum (mg/kg) | 18.9 | N.A. | N.D. | |
| Sodium (mg/kg) | N.T. | N.A. | N.D. | |
| | | | | |
| Others | | | | |
| pH | 8.19 | N.A. | 9.19 | |
| Chloride (mg/kg) | N.T. | N.A. | N.T. | |
| Cyanide (mg/kg) | N.T. | N.A. | N.T. | |
| Fluoride (mg/kg) | N.T. | 18,000 | N.T. | |
| Nitrate (mg/kg) | N.T. | N.A. | N.T. | |
| Sulfate (mg/kg) | N.T. | N.A. | N.T. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* mg/kg

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|---------------------------------------------------|
| Tank No. | B-0-E |
| Plant No./Nearest Bldg. | 66/Bldg. 349 (Inside) |
| Tank: | Location |
| | 2601 N. Hollywood Way |
| | Installation Date |
| | 1981 |
| | Capacity, gal. |
| | 1,500 |
| | Use/Process |
| | Recirculating water wash for paint spray booth |
| | Contents (past, CAS No., date) |
| | Paint residues |
| | (present, CAS No.) |
| | Paint residues |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Rectangular |
| | Depth to Top |
| | UNK. |
| | Depth to Invert |
| | 4.1 ft |
| | Diameter |
| | 10.2 ft width |
| | Length (L) |
| | 40.6 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK. |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK. |
| | Type |
| | UNK. |
| | Construction Mat. |
| | UNK. |
| Site: | Paving Material/Thickness |
| | UNK. |
| | Appearance |
| | |
| | Surface Contamination |
| | UNK. |
| Drilling Program | Rig Type/Requirements (3) |
| | Inspection |
| | borings (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Vapor Wells/Lysimeters (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Completion Interval |
| | |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 2 |
| | Parameters |
| | CAN, pH |
| | No. of Tank Soil Samples |
| | 0 |
| | Parameters |
| | |

TANK NUMBER B-6-F

On December 27, 1984, this seven-stage clarifier was inspected for evidence of leakage, in accordance with the approved Work Plan. The second stage from the south end of the clarifier was visually inspected from the inside. The bottom of this stage was covered with 5 to 10 inches of silty sediment and about 4 inches of fluid, so the bottom was obscured from view. The four containing walls, which are coated on the inside with Hunter Process polymuforic resin, did not show any signs of cracking. However, substances on the surfaces of the walls, especially those on the stage-dividing walls, could be scraped easily. These substances are likely to be chemical precipitates (such as calcium carbonate) and would not cause any leaks in the clarifier. The precipitate deposited on the stage-dividing walls was approximately 1/8" thick, and may have prevented a thorough inspection of the underlying concrete. However, the two side containment walls, which have much less precipitate deposited on them, could be seen clearly and showed no evidence of cracking. The remaining six stages of the clarifier were inspected from ground level by lowering a drop-light into the individual stages. These stages, almost identical in their appearance and condition to the previously-inspected one, also showed signs of chemical precipitation on the walls. No evidence of cracking or leaking in any of these six stages was found.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------------|
| Tank No. | 6-o-f |
| Plant No./Nearest Bldg. | B6/Bldg. 353 (Hoscoe) |
| Tank: | Location |
| | 2801 N. Hollywood Way |
| | Installation Date |
| | 1981 |
| | Capacity, gal. |
| | 5,000 |
| | User/Process |
| | Clarifier, metal rinsing waste water |
| | Contents (past, CAS No., date) |
| | Final rinsewater |
| | (present, CAS No.) |
| | Phosphoric acid 7664382 |
| | Sodium Hydroxide 1310712 |
| | Sodium Bisulfite 7681965 |
| | Construction Materials |
| | Pre-cast concrete |
| | Geometry |
| | Rectangular (o-stage) |
| | Depth to Top |
| | UNK |
| | Depth to Invert |
| | 14.8 ft |
| | Diameter |
| | 2.8 ft width |
| | Length (1) |
| | 14 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | Lined, fiberglass epoxy |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Concrete |
| | Appearance |
| | Good |
| | Surface Contamination |
| | None |
| Drilling Program | Log Type/Requirements (3) |
| | Inspection |
| | Borings (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Vapor Wells/Lysimeters (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Completion Interval |
| | |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | |
| | No. of Tank Soil Samples |
| | 0 |
| | Parameters |
| | |

TANK NUMBER B-6-G

As initially approved, this facility was to be inspected. Further discussion with Lockheed personnel, however, indicated that the necessary arrangements required for inspections would significantly impact normal process operations. Alternate monitoring programs have been discussed recently with Mr. Al Novak, RWQCB, and will likely involve drilling, sampling, and installation of a monitoring device such as a vapor monitoring well or a suction lysimeter. Exact program plans will be submitted for this facility by February 1, 1985.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | | |
|-------------------------|--------------------------------|----------------------------------------------------------------|
| Tank No. | B-o-B | |
| Plant No./Nearest Bldg. | Bor/Bldg. 371 (Inside-S) | |
| Tanks: | Location | 2601 M. Hollywood way |
| | Installation Date | Pre-1950 |
| | Capacity, gal. | 1,500 |
| | User/Process | Clarifier, metal cleaning and pressure test waste |
| | Contents (past, CAS No., date) | kerosene emulsion 8052413 |
| | (present, CAS No.) | kerosene emulsion 8052413 Dilute Chromic Acid 7736945 |
| | Construction Materials | Concrete |
| | Geometry | Rectangular (3-stage) |
| | Depth to Top | UNK |
| | Depth to Invert | ~7 ft |
| | Diameter | 3.9 ft width |
| | Length (ft) | 12.2 ft |
| | Containment | None |
| | Corrosive Protection (2) | UNK |
| | Status | In service |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | UNK |
| Site: | Paving Material/Thickness | Concrete |
| | Appearance | Good |
| | Surface Contamination | UNK |
| Drilling Program | Rig Type/Requirements (3) | Inspection |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | 0 |
| | Sample Depths | |
| | Completion Interval | |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | 0 |
| | Parameters | |

TANK NUMBER B-6-H

FIELD PROGRAM

One suction lysimeter, B-6-H-SL1, was installed to monitor subsurface conditions at boiler blowdown Clarifier B-6-H.

SUCTION LYSIMETER B-6-H-SL1

Monitoring Installations - Suction Lysimeter B-6-H-SL1 was installed slightly east of the approved location due to a buried concrete conduit possibly containing high voltage lines. Two attempts were made to install the suction lysimeter to the planned depth, before the third attempt was successful. The first attempt struck steel concrete at 2 feet below ground surface, and the second attempt struck steel at 3 feet. Both the actual and approved locations of the suction lysimeter are indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 12 feet, as approved in the Work Plan.

Field Observations - The medium to coarse grain size and brown color of the sand remained consistent throughout the boring. The frequency of cobbles increased at 3 feet and continued to 5 feet.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The sample from B-6-H-SL1 was analyzed for pH and sulfate.

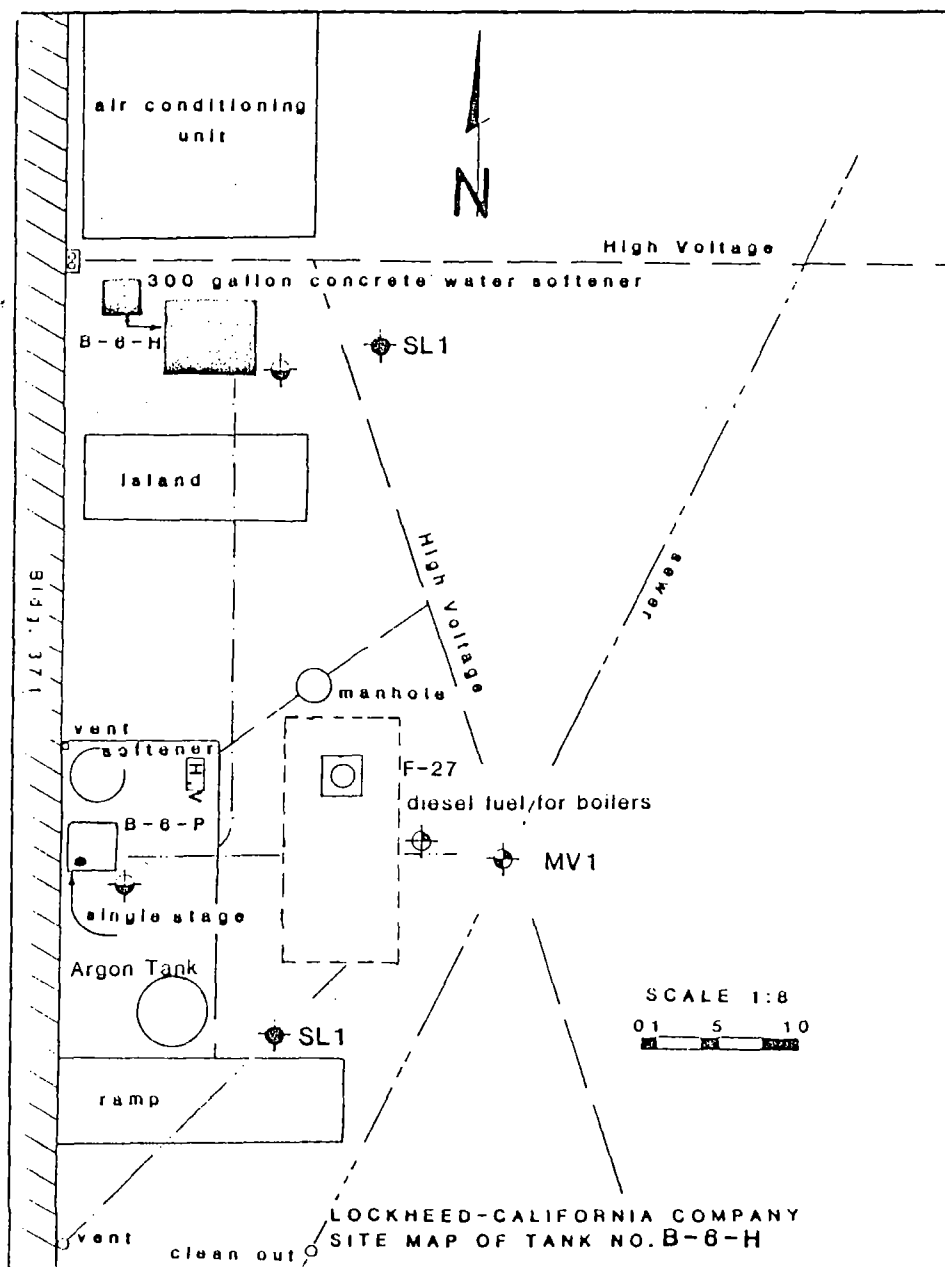
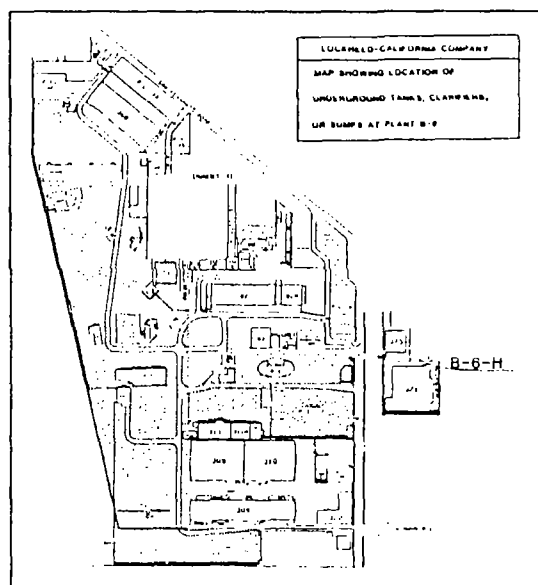
Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-H. The levels of contaminants found in the samples were all below or comparable to the average background samples levels.

CONCLUSIONS

Both field and laboratory analysis results show that the suspected contaminants were below detection limits or were comparable to the average background levels. It is concluded that the tank is not leaking.

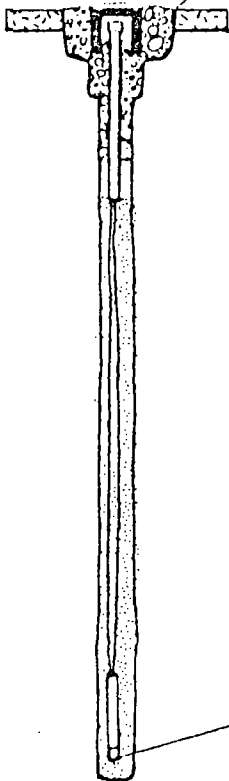
RECOMMENDATION

Proceed with quarterly monitoring of the wells.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------------------|
| Tank No. | B-6-n |
| Plant No./Nearest Bldg. | Bo/Blug. 371 (E Side) |
| Tank: | Location |
| | 2601 N. Hollywood Way |
| | Installation Date |
| | Pre-1950 |
| | Capacity, gal. |
| | 300 |
| | Use/Process |
| | Clarifier, boiler blowdown |
| | Contents (past, CAS No., date) |
| | Salt Brine 7047145 |
| | (present, CAS No.) |
| | boiler blowdown Salt Brine 7047145 |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Square (1-stage) |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | 5.5 ft |
| | Diameter |
| | 5.6 ft width |
| | Length (1) |
| | 5.0 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Sites: | Paving Material/Thickness |
| | Asphalt |
| | Appearance |
| | Disturbed asphalt with concrete islands |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | H.S. Auger |
| | Borings (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Vapor Wells/Lysimeters (No.) |
| | 1 |
| | Sample Depths |
| | SL1/12 ft |
| | Completion Interval |
| | SL1/10 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | |
| | No. of Tank Soil Samples |
| | 1 |
| | Parameters |
| | pH, Sulfates |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|-----------------------------------------------------------|
|  | - 0 - | | | Concrete |
| | - 1 - | | | Sand, medium to coarse grain, brown, w/pebbles to cobbles |
| | - 2 - | | | |
| | - 3 - | | | Abundant cobbles |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | 50 | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter, at 10 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-7 ft
- Clean sand & native mix, 7-13 ft

TANK NO. B-6-HSUCTION LYSIMETER NO. B-6-H-SL1

TABLE B-6-H: CHEMICAL ANALYSES

| PARAMETER | SAMPLE I.D. | | |
|-------------------------------|-------------|---------|-----------|
| | ----- | | |
| | BACK | TILE | B-6-H |
| | GROUND | | SL1 |
| | SAMPLE | | 12-13 ft. |
| Volatile Organics (ug/kg) | | N.A. | N.T. |
| Benzene | <0.2 | | |
| Carbon Disulfide | | | |
| 1,1 Dichloroethene | <0.1 | | |
| Methylene Chloride | <0.5 | | |
| Perchloroethylene | <0.4 | | |
| 1,1,1 Trichloroethane | <0.2 | | |
| Trichloroethylene | <0.3 | * 2,040 | |
| Toluene | <0.4 | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. |
| CAM Metals (ug/kg) | | | N.T. |
| Antimony | <2.5 | 500 | |
| Arsenic | 12.7 | 500 | |
| Barium | 43.4 | 10,000 | |
| Beryllium | <1.0 | 75 | |
| Cadmium | <0.5 | 100 | |
| Chromium (Total) | 6.3 | 2,500 | |
| Cobalt | 4.3 | 8,000 | |
| Copper | 8.6 | 250 | |
| Lead | <2.5 | 1,000 | |
| Mercury | <0.1 | 20 | |
| Molybdenum | 6.9 | 3,500 | |
| Nickel | 4.1 | 2,000 | |
| Selenium | <2.5 | 100 | |
| Silver | <2.5 | 500 | |
| Thallium | <2.5 | 700 | |
| Vanadium | 12.7 | 2,400 | |
| Zinc | 21.4 | 2,500 | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. |
| Others | | | |
| pH | 8.19 | N.A. | 7.4 |
| Chloride (ug/kg) | N.T. | N.A. | N.T. |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. |
| Fluoride (ug/kg) | N.T. | 18,000 | N.T. |
| Nitrate (ug/kg) | N.T. | N.A. | N.T. |
| Sulfate (ug/kg) | N.T. | N.A. | 14.1 |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TILE - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

As initially approved, this facility was to be inspected. Further discussion with Lockheed personnel, however, indicated that the necessary arrangements required for inspections would significantly impact normal process operations. Alternate monitoring programs have been discussed recently with Mr. Al Novak, RWQCB, and will likely involve drilling, sampling, and installation of a monitoring device such as a vapor monitoring well or a suction lysimeter. Exact program plans will be submitted for this facility by February 1, 1985.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------------------|
| Tank No. | B-b-1 |
| Plant No./Nearest Bldg. | Bb/Bldg. 360 (Inside-SW) |
| Tank: | Location |
| | 2801 W. Hollywood Way |
| | Installation Date |
| | 1957 |
| | Capacity, gal. |
| | 300 |
| | Use/Process |
| | Clarifier, final metal cleaning rinsewater |
| | Contents (past, CAS No., date) |
| | Dilute Chromic Acid 7738945 |
| | (present, CAS No.) |
| | Dilute Chromic Acid 7738945 |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Rectangular (3-stage) |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | 5.1 ft |
| | Diameter |
| | 4.4 ft width |
| | Length (1) |
| | 13.5 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Concrete |
| | Appearance |
| | Fair |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | Inspection |
| | Borings (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Vapor Wells/Lysimeters (No.) |
| | 0 |
| | Sample Depths |
| | |
| | Completion Interval |
| | |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | |
| | No. of Tank Soil Samples |
| | 0 |
| | Parameters |
| | |

TANK NUMBER B-6-J

As initially approved, this facility was inspected. This facility was abandoned by filling with sand and concrete. There is no indication of any significant surface cracks in the concrete in the cap nor in the top of the sides of the structure. Because of the concrete cap, the interior of the facility could not be inspected. There is no evidence to believe that the facility lacked integrity. No further action is needed.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | | |
|-------------------------|--------------------------------|---------------------------------------------|
| Tank No. | B-6-J | |
| Plant No./Nearest Bldg. | Bo/bldg. 82 (Inside-5) | |
| Tank: | Location | 2801 N. Hollywood Way |
| | Installation Date | UNK |
| | Capacity, gal. | UNK |
| | Use/Process | Former clarifier, metal cleaning rinsewater |
| | Contents (past, CWS No., date) | Final rinsewater |
| | (present, CWS No.) | Sand and concrete |
| | Construction Materials | Concrete |
| | Geometry | Rectangular |
| | Depth to Top | Sealed |
| | Depth to Invert | UNK |
| | Diameter | ~2.8 ft width |
| | Length (L) | ~4.6 ft |
| | Containment | UNK |
| | Corrosive Protection (2) | UNK |
| | Status | Abandoned |
| Tank Piping: | Number | Removed |
| | Type | UNK |
| | Construction Mat. | UNK |
| Site: | Paving Material/Thickness | Concrete |
| | Appearance | Good |
| | Surface Contamination | UNK |
| Drilling Program | Hig Type/Requirements (3) | Inspection |
| | Borings (No.) | 0 |
| | Sample Depths | 0 |
| | Vapor Wells/Lysimeters (No.) | 0 |
| | Sample Depths | |
| | Completion Interval | |
| Laboratory Program (4) | No. of Tank Content Samples | 0 |
| | Parameters | |
| | No. of Tank Soil Samples | 0 |
| | Parameters | |

TANK NUMBER B-6-K

FIELD PROGRAM

One boring, one suction lysimeter, and one vapor monitoring well were drilled/installed to monitor subsurface conditions at process Clarifier B-6-K

BORING B-6-K-B1/SUCTION LYSIMETER B-6-K-SL1

Monitoring Installations - Boring B-6-K-B1 was drilled slightly west of the approved location due to a fire protection line 5 feet below ground surface. Two attempts were made before the third attempt reached the completion depth of 40 feet. The first attempt struck the 8-inch steel, fire protection line; the second attempt hit an unknown pipe 4 feet below ground surface. Upon completion, the boring was caved to 12 feet, and a lysimeter installed per verbal request by Mr. Al Novak of the RWQCB. Both the actual and the approved locations of the boring and suction lysimeter are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at depths of 3, 9, 14, 25, and 40 feet, according to the Work Plan. However, interference from a cobble at 14 feet necessitated shifting the sample intervals to 3, 9, 14, 24, and 39 feet. Based on the absence of any layers of low permeability in the upper portions of the soil horizons, and the loose, highly conductive nature of the sand that predominate the lithology, it is unlikely that slight variance in the sampling intervals will significantly alter the chemical concentration profile of the soil.

Field Observations - The medium to very coarse grain size of the sand remained consistent throughout the first 24 feet of the boring. At 24 feet the sand became finer and the gravel and cobble fraction decreased. The soil was a greenish brown color throughout the first 12 feet. From 12 to 24 feet the color changed drastically from greenish brown to variegated light brown. The color changed again at 24 feet to a dark brown which corresponds with the general grain size decrease at the same depth.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil from the surface to 12 feet had a strong odor indicating possible contamination. The odor disappeared completely at 12 feet.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in two 55-gallon drums approved for storage of hazardous waste.

TANK B-6-K (continued)

VAPOR MONITORING WELL B-6-K-MV1

Monitoring Installations - Vapor Monitoring Well B-6-K-MV1 was installed as indicated in the approved Work Plan. The location of the vapor monitoring well is indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 10 feet, as approved in the Work Plan.

Field Observations - The medium to coarse grain size and grey color of the sand remained consistent throughout the first 7 feet of the well. At 7 feet the sand became coarser and the gravel and cobble fraction increased. From 7 to 10 feet the color changed drastically from grey to variegated light brown which corresponds with the general grain size increase at the same depth.

The soil from the surface had a strong odor indicating possible contamination.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in two 55-gallon drums approved for storage of hazardous waste.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - Based on field observations indicating the potential presence of contaminants in the soil samples, individual depth samples, rather than a composite sample, were analyzed in the laboratory. Also, volatile organics were analyzed in addition to the other tests approved in the Work Plan.

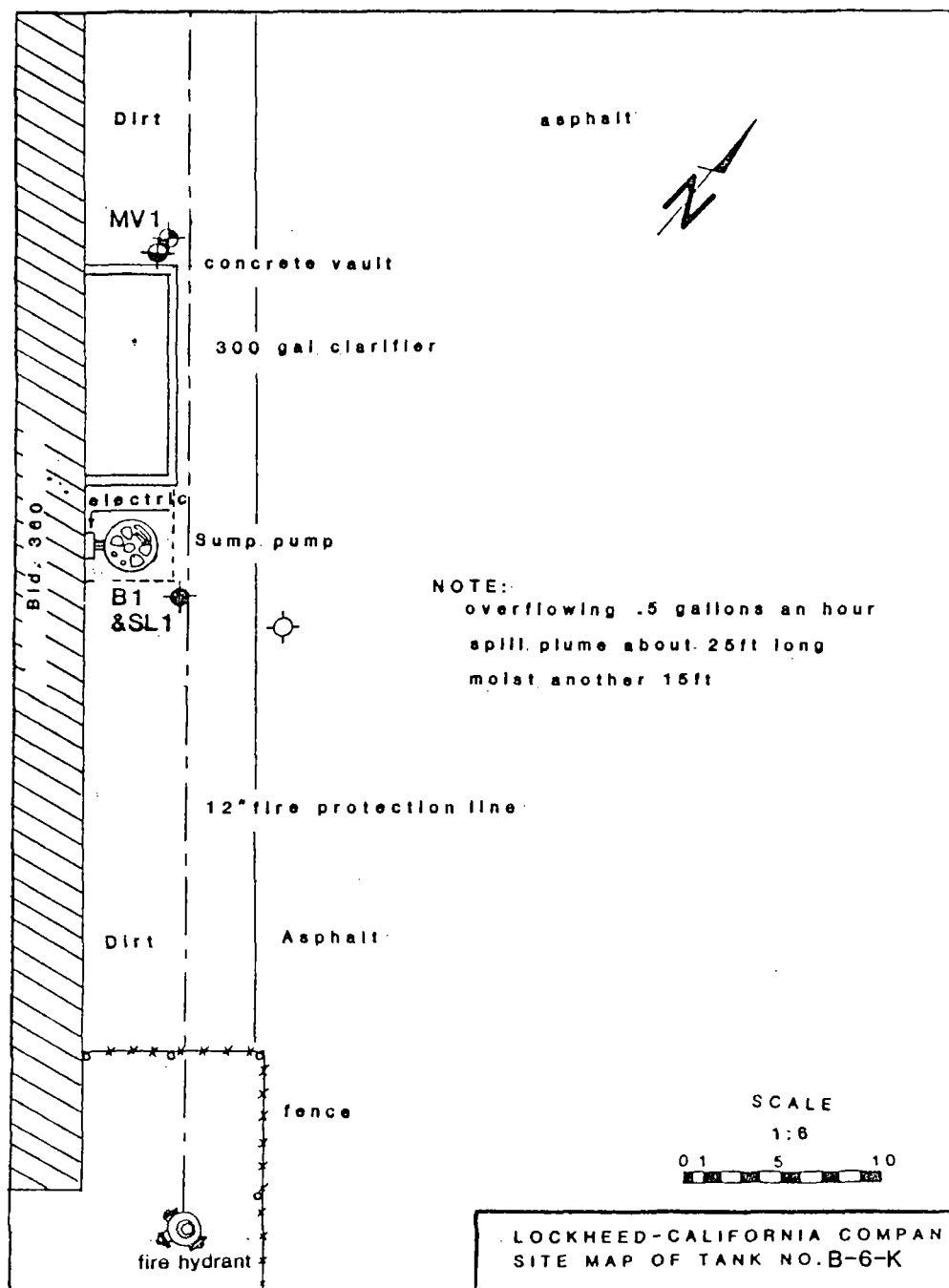
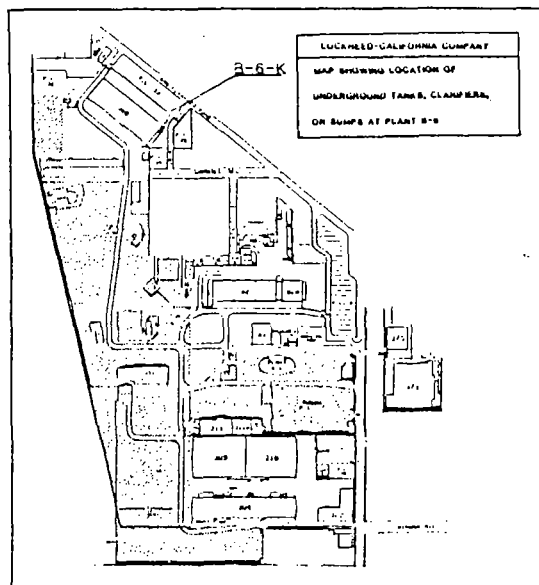
Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-K. The soil was found to be contaminated as pH levels were from 0.5 to 3 units below normal background.

CONCLUSIONS

Tank B-6-K, a clarifier, overflowed for several months onto an unimproved area due to a faulty float switch. Therefore, although it is likely that contamination is due to the accidental overflow, the spillage would mask any possible contamination if the clarifier has leaked.

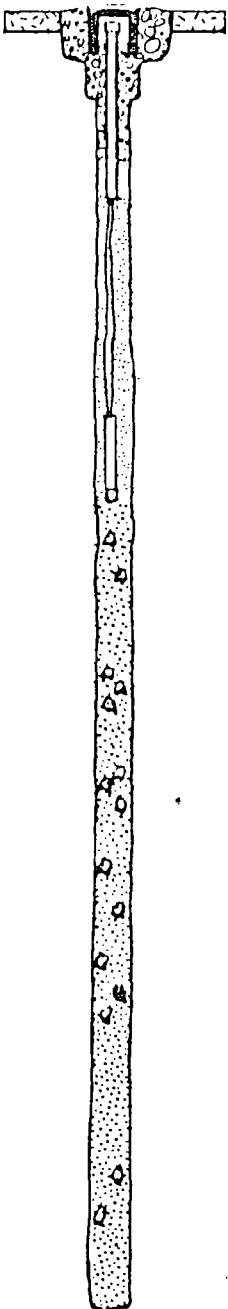
RECOMMENDATION

Proceed with quarterly monitoring of the wells.



PERTINENT CONSTRUCTION AND PROGRAM DATA

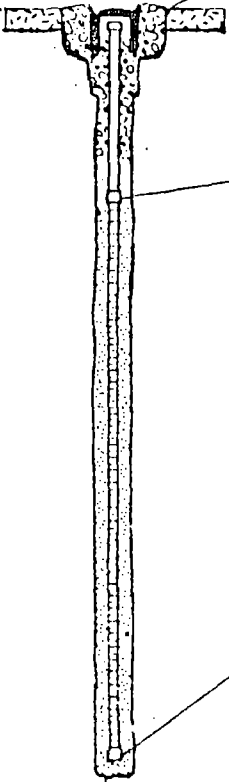
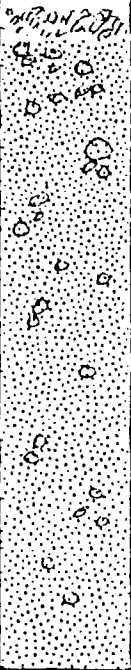
| | | |
|-------------------------|--------------------------------|-------------------------------------------------------------------|
| Tank No. | 6-0-R | |
| Plant No./Nearest Bldg. | 66/Bldg. 300 (NE Side) | |
| Tank: | Location | 2801 N. Hollywood Way |
| | Installation Date | 1957 |
| | Capacity, gal. | 300 |
| | User/Process | Secondary clarifier discharge from B-3-1 |
| | Contents (past, CAS No., date) | Dilute acids, some oil |
| | (present, CAS No.) | Dilute acids, some oil |
| | Construction Materials | Concrete |
| | Geometry | Rectangular (1-stage) |
| | Depth To Top | UNK |
| | Depth To Invert | 4 ft |
| | Diameter | 4 ft width |
| | Length (ft) | 13.5 ft |
| | Containment | None |
| | Corrosive Protection (2) | UNK |
| | Status | In service |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | UNK |
| Site: | Paving Material/Thickness | Asphalt |
| | Appearance | Poor-overflow rate approx. .5 gal/hr |
| | Surface Contamination | Overflow plume extending 74 ft |
| Drilling Program | Rig Type/Requirements (3) | H.S. Auger |
| | Borings (No.) | 1 |
| | Sample Depths | 81/3, 9, 14, 24, 37 ft |
| | Vapor Wells/Lysimeters (No.) | 2 |
| | Sample Depths | MV1/8 ft SL1/REF. TO 61 |
| | Completion Interval | MV1/4-9.9 ft SL1/11 ft |
| Laboratory Program (4) | No. of Tank Content Samples | 5 |
| | Parameters | Cr, Ni, F, pH, SO ₄ , H ₂ S hydrocarbons |
| | No. of Tank Soil Samples | 1 |
| | Parameters | Vol. Org. |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|------------------------------------------------------------------------|
|  | - 0 - | | | Gravel (planter area) |
| | - 2 - | | | Sand, medium grain, green brown, moist w/cobbles to 5-in |
| | - 4 - | | 10 | |
| | - 6 - | | | |
| | - 8 - | | | |
| | - 10 - | | 20 | Sand, medium to coarse grain, variegated, occasional cobbles & pebbles |
| | - 12 - | | | |
| | - 14 - | | 50 | |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 55 | Sand, medium grain, brown, occasional large pebbles |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Suction lysimeter at 11 ft
- Concrete, 0-2 ft
- Bentonite, 2-4 ft
- Clean sand, 4-8 ft
- Clean sand & native mix, 8-12 ft
- Clean sand, 12-15 ft
- Caved, 15-40 ft

TANK NO. B-6-KBORING NO. B-6-K-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------------|----------------------------|
|  | - 0 - |  | | - Gravel (planter area) |
| | - 1 - | | | - Sand & Gravel, medium to |
| | - 2 - | | | coarse grain, dark grey, |
| | - 3 - | | | moist, occasional cobbles |
| | - 4 - | | | to 3 in |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | - Strong odor |
| | - 9 - | | | |
| | - 10 - | | 25 | - Color change, lighter & |
| | - 11 - | | | slightly coarser |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2 in I.D.
PVC pipe, 0-4 ft
- Screened 2-in I.D.
PVC pipe, 4-9.9 ft
- Bentonite, 0-4 ft
- Clean sand, 4-10 ft

TANK NO. B-6-KMONITORING WELL NO. B-6-K-MV1

TABLE B-6-K: CHEMICAL ANALYSES

| PARAMETER | SAMPLE I.D. | | | | | | | |
|-------------------------------|-------------|---------|---------|----------|-----------|--------|-----------|---------|
| | BACK | TTL | B-6-K | B-6-K | B-6-K | B-6-K | B-6-K | B-6-K |
| | GROUND | | B1 | B1 | B1 | B1 | B1 | SL1 |
| | SAMPLE | | 3-4 ft. | 9-10 ft. | 14-15 ft. | 25 ft. | 39-40 ft. | 8-9 ft. |
| Volatile Organics (ug/kg) | | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Benzene | <0.2 | | | | | | | |
| Carbon Disulfide | | | | | | | | |
| 1,1 Dichloroethene | <0.1 | | | | | | | |
| Methylene Chloride | <0.5 | | | | | | | |
| Perchloroethylene | <0.4 | | | | | | | |
| 1,1,1 Trichlorethane | <0.2 | | | | | | | |
| Trichloroethylene | <0.3 | * 2,040 | | | | | | |
| Toluene | <0.4 | | | | | | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | | | | | | |
| Arsenic | 12.7 | 500 | | | | | | |
| Barium | 43.4 | 10,000 | | | | | | |
| Beryllium | <1.0 | 75 | | | | | | |
| Cadmium | <0.5 | 100 | | | | | | |
| Chromium (Total) | 6.3 | 2,500 | 8.0 | 3.5 | 4 | 8.1 | 4.5 | 3.6 |
| Cobalt | 4.3 | 8,000 | | | | | | |
| Copper | 8.6 | 250 | | | | | | |
| Lead | <2.5 | 1,000 | | | | | | |
| Mercury | <0.1 | 20 | | | | | | |
| Molybdenum | 6.9 | 3,500 | | | | | | |
| Nickel | 4.1 | 2,000 | | | | | | |
| Selenium | <2.5 | 100 | | | | | | |
| Silver | <2.5 | 500 | | | | | | |
| Thallium | <2.5 | 700 | | | | | | |
| Vanadium | 12.7 | 2,400 | | | | | | |
| Zinc | 21.4 | 2,500 | | | | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | 32.7 | N.T. | 28.0 | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Others | | | | | | | | |
| pH | 8.19 | N.A. | 7.8 | 4.9 | 7.0 | 5.6 | 6.5 | 6.6 |
| Chloride (ug/kg) | N.T. | N.A. | 3.5 | 2.5 | N.T. | 2.3 | 1.6 | N.T. |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. | <0.2 | <0.2 | <0.2 | <0.2 | N.T. |
| Fluoride (ug/kg) | N.T. | 18,000 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nitrate (ug/kg) | N.T. | N.A. | 2.0 | 2.0 | N.T. | N.T. | 2.0 | N.T. |
| Sulfate (ug/kg) | N.T. | N.A. | 13.9 | 6.7 | N.T. | 21.2 | 6.7 | N.T. |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

FIELD PROGRAM

Two borings, B-6-L-B1, one suction lysimeter, B-6-L-SL1, and one vapor monitoring well, B-6-L-MV1, were drilled/installed to monitor subsurface conditions at oil sump B-6-L.

BORING B-6-L-B1

Monitoring Installations - Boring B-6-L-B1 was drilled slightly north and west of the approved location due to underground obstructions. Both the actual and approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples were taken at depths of 5, 18, 23, 30 and 40 feet, as approved in the Work Plan.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the entire boring. The frequency of cobbles increased at 12, 26 and 31 feet, each layer diminishing after several feet.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

BORING B-6-L-B2

Monitoring Installations - Boring B-6-L-B2 was drilled to monitor the waste oil sump as indicated in the Work Plan. The location of the boring is shown on the site map.

Sampling Intervals - Soil samples were taken at depths of 8, 15, 23, 30 and 40 feet, as approved in the Work Plan.

Field Observations - The medium coarse grain size and brown color of the sand remained consistent throughout the entire boring.

There were no indications of contamination.

SUCTION LYSIMETER B-6-L-SL1

Monitoring Installations - Suction Lysimeter B-6-L-SL1 was installed slightly north of the approved location due to underground obstructions. Both the actual and approved locations of the lysimeter are indicated on the site map.

Sampling Intervals - No sample was taken due to adequate sampling coverage by other installations at Sump B-6-L.

Field Observations - The fine to coarse grain size and brown color of the sand remained consistent throughout the entire suction lysimeter.

TANK B-6-L (continued)

There were no indications of contamination.

VAPOR MONITORING WELL B-6-L-MV1

Monitoring Installations - Vapor Monitoring Well B-6-L-MV1 was installed as indicated in the approved Work Plan. The location of the vapor monitoring well is indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 13 feet, as approved in the Work Plan.

Field Observations - The medium to coarse grain size and brown color of the sand remained consistent throughout the entire 13 feet of Vapor Monitoring Well B-6-L-MV1.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The liquid sample of the contents of the tank was analyzed as approved in the Work Plan. The soil samples taken from Boring B-6-L-B2 were composited and analyzed as approved in the Work Plan.

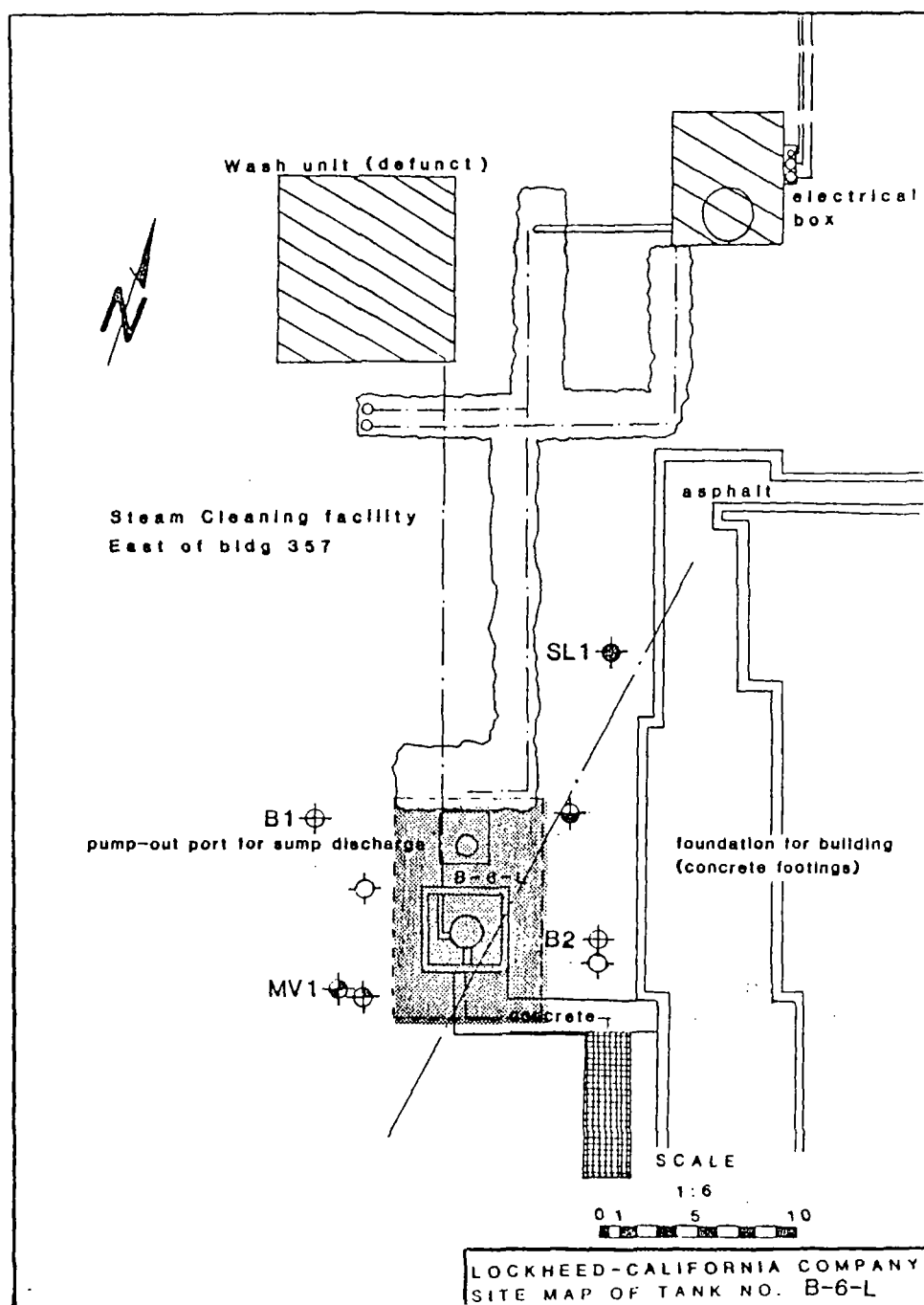
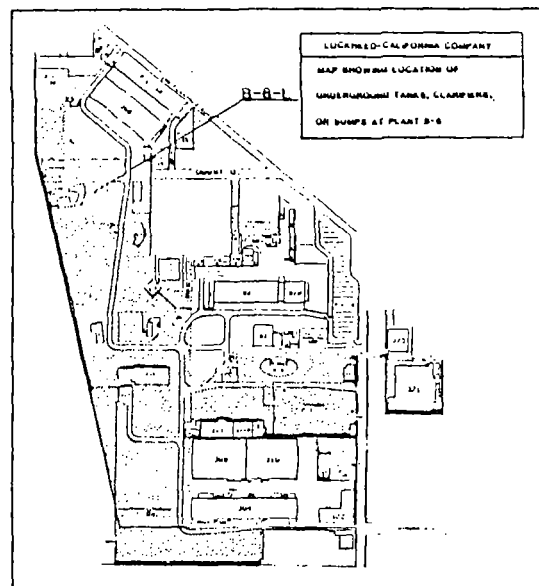
Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-L. The results indicate that 41 ug/kg of carbon tetrachloride, 10 mg/kg of 2-hexanone, and 8 mg/kg of petroleum hydrocarbons were detected in the soil sample, suggesting that the soils are contaminated.

CONCLUSIONS

There is insufficient evidence to conclude whether or not the tank is leaking.

RECOMMENDATION

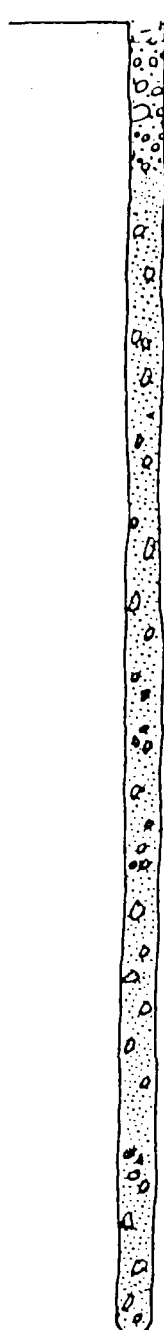
Since the tank is slated for permanent abandonment, no other analysis or action is recommended.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|------------------------------------------------------|
| Tank No. | b-c-L |
| Plant No./Nearest Bldg. | Bb/Bldg. 357 (170 ft E) |
| Tank: | Location |
| | 2801 N. Hollywood Way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | 2,000 |
| | Use/Process |
| | Abandoned steam cleaning operation-discharge pump |
| | Contents (past, CAS No., date) |
| | UNK (probably oily water) |
| | (present, CAS No.) |
| | Oily water |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Rectangular |
| | Depth To Top |
| | 4.8 ft |
| | Depth To Invert |
| | 12.5 ft |
| | Diameter |
| | 5.7 ft width |
| | Length (l) |
| | 6.5 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | Abandoned |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Asphalt |
| | Appearance |
| | Much disturbed asphalt |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | M.S. Hoger |
| | Borings (No.) |
| | 2 |
| | Sample Depths |
| | B1/5, 16, 23, 30, 40 ft B2/8, 15, 23, 30, 40 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 2 |
| | Sample Depths |
| | MV1/13.5 ft SL1/No sample |
| | Completion Interval |
| | MV1/5-13 ft SL1/13 ft |
| Laboratory Program (4) | No. of Tank Content Samples |
| | 2 |
| | Parameters |
| | ph, SO ₄ , Cr, Hex |
| | No. of Tank Soil Samples |
| | 2 (Comp.) |
| | Parameters |
| | Hydrocarbons, Vol. Org. |

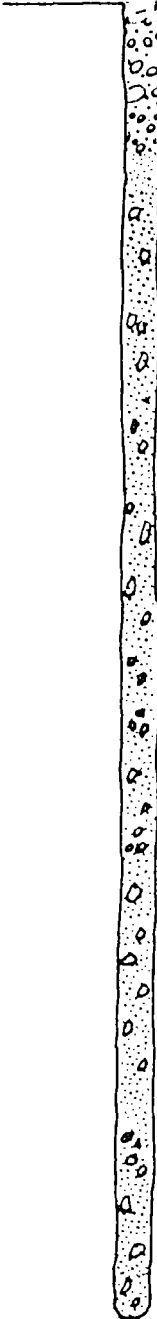
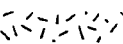
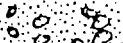
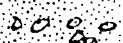




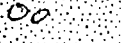
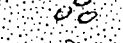
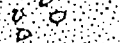

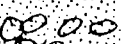




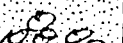
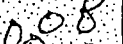

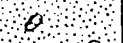

0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|-------------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, fine to coarse grain, brown, occasional pebbles |
| | - 4 - | | | |
| | - 6 - | | 40 | |
| | - 8 - | | | |
| | - 10 - | | | |
| | - 12 - | | | |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | 50 | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 49 | |
| | - 26 - | | | Cobbles |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | 50 | Cobbles |
| | - 34 - | | | Sand becoming coarser w/depth |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 76 | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, 0.5-3 ft
- Bentonite, 3-5 ft
- Native material, 5-40 ft

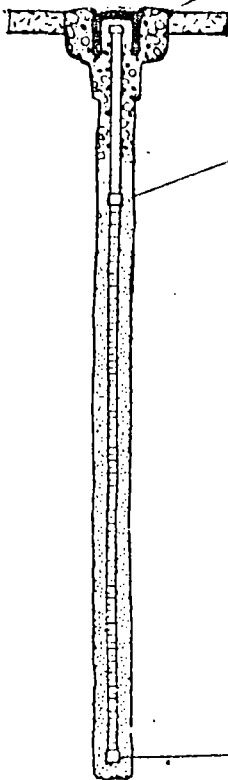
TANK NO. B-6-LBORING NO. B-6-L-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------|---------------------------------------------------------|
|  | - 0 - |  | | -Asphalt |
| | - 2 - |  | | -Sand, fine to coarse grain, brown, occasional pebbles. |
| | - 4 - |  | | |
| | - 6 - |  | | |
| | - 8 - |  | 37 | |
| | - 10 - |  | | |
| | - 12 - |  | | |
| | - 14 - |  | | |
| | - 16 - |  | 50 | |
| | - 18 - |  | | |
| | - 20 - |  | | -Cobble layer |
| | - 22 - |  | | |
| | - 24 - |  | 66 | |
| | - 26 - |  | | |
| | - 28 - |  | | -Cobble layer |
| | - 30 - |  | 62 | |
| | - 32 - |  | | |
| | - 34 - |  | | |
| | - 36 - |  | | |
| | - 38 - |  | | |
| | - 40 - |  | 69 | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, 0.5-3 ft
- Bentonite, 3-5 ft
- Native material, 5-40 ft

TANK NO. B-6-LBORING NO. B-6-L-B2

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------|--------------|---------------------------------------------------|
|  | - 0 - | Asphalt | | - Asphalt |
| | - 1 - | Sand, fine to coarse, brown, occasional pebbles | | - Sand, fine to coarse, brown, occasional pebbles |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | 45 | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

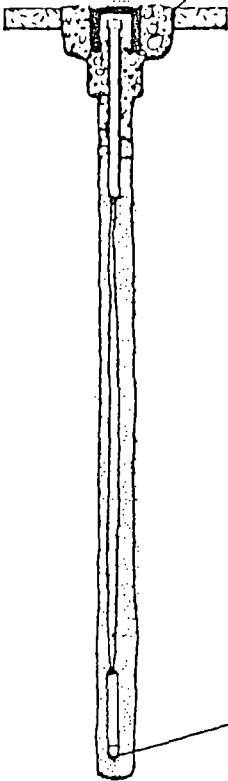
BACKFILL & COMPLETION

- Blank 2-in I.D. PVC pipe, 0.3-3 ft
- Screened 2-in I.D. PVC pipe, 3-13 ft
- Concrete, 0-2.5 ft
- Bentonite, 2.5-3.5 ft
- Clean sand, 3.5-13.5 ft

TANK NO. B-6-L

MONITORING WELL NO. B-6-L-MV1

GREGG & ASSOCIATES, INC.

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------|--------------|-------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Sand, fine to coarse grain, brown, occasional pebbles | | Sand, fine to coarse grain, brown, occasional pebbles |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at 13 ft
- Concrete, 0-2.5 ft
- Bentonite, 2.5-5 ft
- Clean sand, 5-10 ft
- Clean sand & native mix 10-15 ft

TANK NO. B-6-LSUCTION LYSIMETER NO. B-6-L-SL1

TABLE B-6-L: CHEMICAL ANALYSES

| PARAMETER | | | SAMPLE I.D. | |
|-------------------------------|--------|---------|-------------|-----------|
| | | | | |
| | BACK | TTL | B-6-L | B-6-L |
| | GROUND | | LIQUID | B1 & B2 |
| | SAMPLE | | | COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | N.T. | |
| Benzene | <0.2 | | | N.D. |
| Carbon Disulfide | | | | N.D. |
| Carbon Tetrachloride | <0.1 | | | 41.0 |
| Methylene Chloride | <0.5 | | | N.D. |
| Perchloroethylene | <0.4 | | | N.D. |
| 1,1,1 Trichloroethane | <0.2 | | | N.D. |
| Trichloroethylene | <0.3 | * 2,040 | | N.D. |
| 2-Hexanone | <0.4 | | | *10.0 |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.D. | 7.9 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | | N.T. |
| Antimony | <2.5 | 500 | N.T. | |
| Arsenic | 12.7 | 500 | N.T. | |
| Barium | 43.4 | 10,000 | N.T. | |
| Beryllium | <1.0 | 75 | N.T. | |
| Cadmium | <0.5 | 100 | N.T. | |
| Chromium (Total) | 6.3 | 2,500 | N.D. | |
| Cobalt | 4.3 | 8,000 | N.T. | |
| Copper | 8.6 | 250 | N.T. | |
| Lead | <2.5 | 1,000 | N.T. | |
| Mercury | <0.1 | 20 | N.T. | |
| Molybdenum | 6.9 | 3,500 | N.T. | |
| Nickel | 4.1 | 2,000 | N.T. | |
| Selenium | <2.5 | 100 | N.T. | |
| Silver | <2.5 | 500 | N.T. | |
| Thallium | <2.5 | 700 | N.T. | |
| Vanadium | 12.7 | 2,400 | N.T. | |
| Zinc | 21.4 | 2,500 | N.T. | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. |
| Others | | | | N.T. |
| pH | 8.19 | N.A. | 8.13 | |
| Chloride (ug/kg) | N.T. | N.A. | N.T. | |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. | |
| Fluoride (ug/kg) | N.T. | 18,000 | N.T. | |
| Nitrate (ug/kg) | N.T. | N.A. | N.T. | |
| Sulfate (ug/kg) | N.T. | N.A. | N.D. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

TANK NUMBER B-6-M

FIELD PROGRAM

One boring, one suction lysimeter, and one vapor monitoring well were drilled/ installed to monitor subsurface conditions at overspill collection tank B-6-M.

BORING B-6-M-B1

Monitoring Installations - Boring B-6-M-B1 was drilled slightly north and west of the approved location due to numerous underground obstructions. Three attempts were made to drill the boring to the planned depth before the fourth attempt was successful. Both the actual and the approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples from Boring B-6-M-B1 were to have been collected at depths of 4, 10, 15, 25, and 40 feet, according to the approved Work Plan. However, ease of sampling necessitated shifting the sample intervals to 6, 9, 14, 24, and 40 feet. Based on the absence of any layers of low permeability in the upper portions of the soil horizons, and the loose, highly conductive nature of the sands that predominate the lithology, it is unlikely that a slight variance in the sampling intervals will significantly alter the chemical concentration profile of the soil.

Field Observations - The medium to fine grain size and brown color of the sand remained consistent throughout the first 24 feet of the boring. At 24 feet the sand became coarser, and the gravel and cobble fraction increased. At 24 feet the color changed from brown to variegated light brown which corresponds with the general grain size increase at the same depth.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

SUCTION LYSIMETER B-6-M-SL1

Monitoring Installations - Suction Lysimeter B-6-M-SL1, installed to monitor the north end of the overspill collection tank, was placed in lieu of the originally approved vapor monitoring well per verbal instructions from Carol Kawamoto of the RWQCB. The lysimeter was placed slightly west of the approved location because it was possible to drill closer to the tank than originally anticipated. Both the actual suction lysimeter and the approved vapor monitoring well locations are indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 12 feet, as approved in the field by Carol Kawamoto of the RWQCB.

TANK B-6-M (continued)

Field Observations - The medium to very coarse grain size and light brown color of the sand remained consistent throughout the first 10 feet of the lysimeter. At 10 feet the sand became finer and the gravel and cobble fraction decreased. At 10 feet the color changed slightly from light brown to dark brown which corresponds with the general grain size decrease at the same depth.

There were no indications of contamination.

VAPOR MONITORING WELL B-6-M-MV1

Monitoring Installations - Vapor Monitoring Well B-6-M-MV1 was installed slightly north and west of the approved location due to rig access problems. Both the actual and the approved locations of the vapor monitoring well are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at a depth of 6 feet, according to the approved Work Plan. However, the monitoring well was placed slightly deeper than the approved completion depth to insure that a leak in the very bottom of the tank would be detected. Monitoring below the tank is necessary because the sand that predominates the lithology is so highly conductive in the vertical sense that a contaminant liquid plume would show virtually no lateral expression.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the first 8 feet of the well. At 8 feet the sand became coarser and the gravel and cobble fraction increased. At 8 feet the color changed from brown to variegated light brown which corresponds with the general grain size increase decrease at the same depth.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The sample taken from Suction Lysimeter B-6-M-SL1 and the liquid sample of the contents of the tank were analyzed for pH, CAM metals, and organic solvents.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-M. The levels of contaminants found in the samples were all below or comparable to the average background samples levels. All volatile organic analyses results were below detection limit.

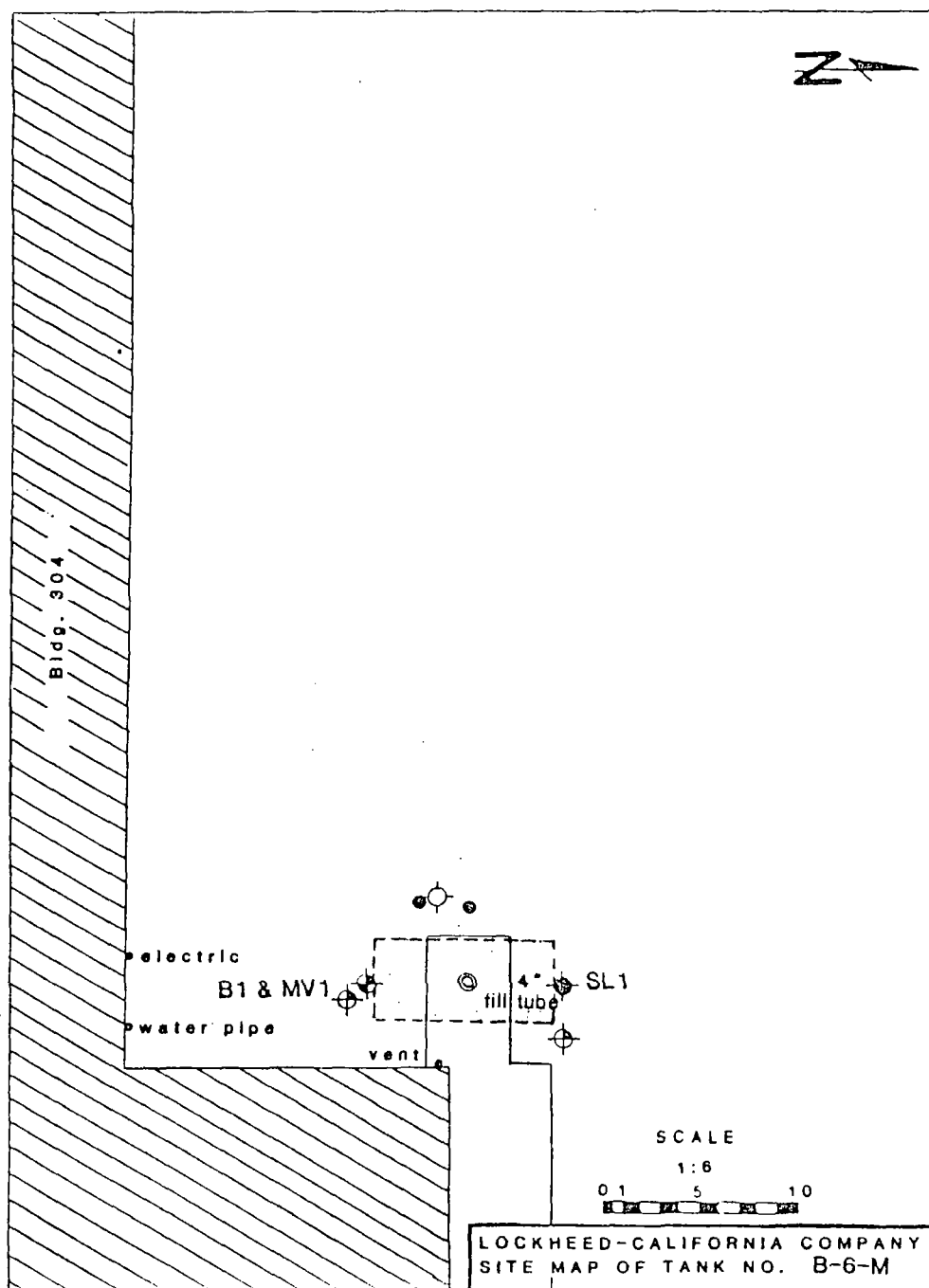
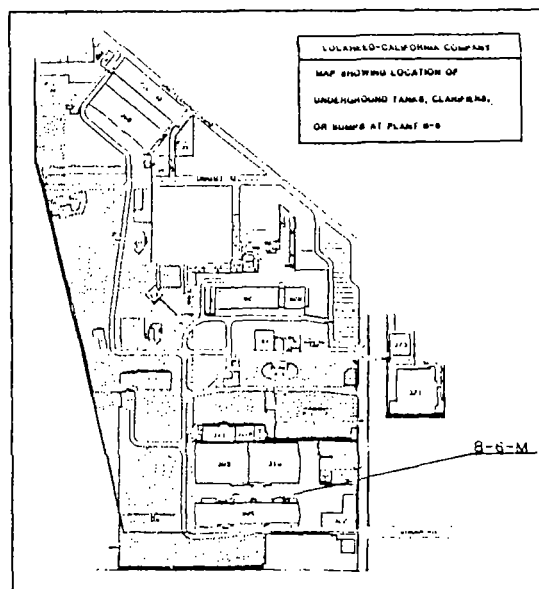
TANK B-6-M (continued)

CONCLUSIONS

Both field and laboratory analysis results show that the suspected contaminants were below detection limits or were comparable to the average background levels. It is concluded that the tank is not leaking.

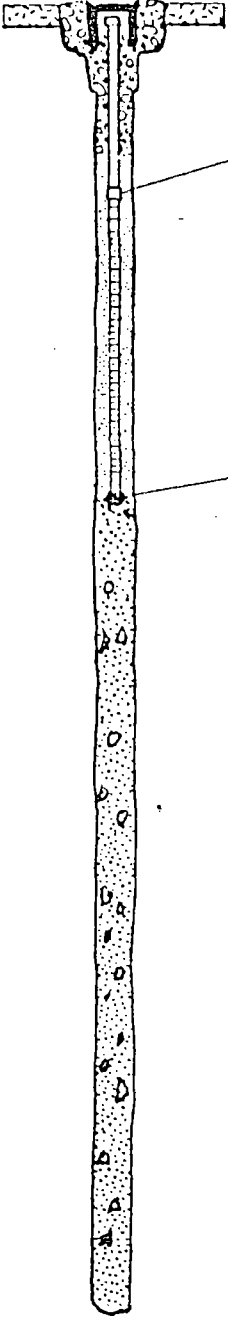
RECOMMENDATION

Proceed with quarterly monitoring of the wells.



PERTINENT CONSTRUCTION AND PROGRAM DATA

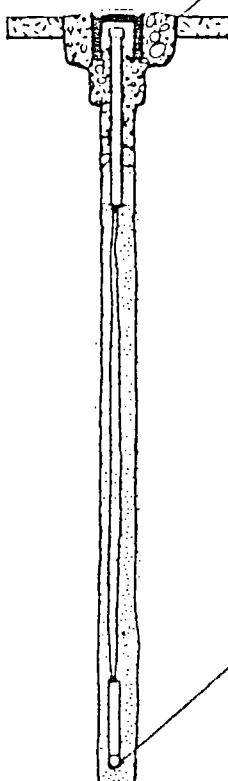

| | |
|---------------------------------------------|-------------------------------------|
| Tank No. | B-6-H |
| Plant No./Nearest Bldg. | 66/Bldg. 304 (W Side) |
| Tank: Location | 2801 N. Hollywood Way |
| Installation Date | UNK |
| Capacity, gal. | UNK |
| Use/Process | UNK |
| Contents (past, CAS No., date) | UNK |
| (present, CAS No.) | Waste water from solvent storage |
| Construction Materials | UNK |
| Geometry | Cylindrical |
| Depth To Top | 2.3 ft |
| Depth To Invert | 5.4 ft |
| Diameter | 3.1 ft |
| Length (1) | UNK |
| Containment | None |
| Corrosive Protection (2) | UNK |
| Status | UNK |
| Tank Piping: Number | UNK |
| Type | UNK |
| Construction Mat. | UNK |
| Site: Paving Material/Thickness | Asphalt/Concrete |
| Appearance | Asphalt with large concrete patches |
| Surface Contamination | UNK |
| Drilling Program: Rig type/Requirements (3) | H.S. Auger |
| Borings (No.) | 1 |
| Sample Depths | B1/0, 9, 14, 24, 39 ft |
| Vapor Wells/Lysimeters (No.) | 2 |
| Sample Depths | MV1/REF. 10 ft SL1/12.5 ft 17 |
| Completion Interval | MV1/3-13.5 ft SL1/10.5 ft |
| Laboratory Program (4) | |
| No. of Tank Content Samples | 2 |
| Parameters | ph, CAn |
| No. of Tank Soil Samples | 1 (Comp.) |
| Parameters | Vol. Org., CAn |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|---------------------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, medium grain, gravelly, moist, occasional cobbles |
| | - 4 - | | | |
| | - 6 - | | 50 | |
| | - 8 - | | 50 | |
| | - 10 - | | | |
| | - 12 - | | | |
| | - 14 - | | 50 | |
| | - 16 - | | | Sand, fine grain, silty, pebbly |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 50 | |
| | - 26 - | | | Sand, coarse grain to 3 in. cobbles, variegated |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | 50 | |
| | - 40 - | | | |

COMPLETION & BACKFILL
 -Blank 2-in I.D.
 PVC pipe, 0-3 ft
 -Screened 2-in I.D.
 PVC pipe, 3-13.5
 -Concrete, 0-2 ft
 -Bentonite, 2-3 ft
 -Clean sand, 3-14 ft
 -Native material, caved
 14-40 ft

TANK NO. B-6-M

BORING NO. B-6-M-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------------|------------------------------------------------------|
|  | - 0 - |  | 50 | Asphalt |
| | - 1 - | | | Sand, medium to coarse grain, gravelly, brown, moist |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | Abundant cobbles |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | Sand, fine grain, brown, moist |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at at 10.5 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-8 ft
- Clean sand & native mix 8-12.5 ft

TANK NO. B-6-MSUCTION LYSIMETER NO. B-6-M-SL1

TABLE B-6-M: CHEMICAL ANALYSES

| PARAMETER | | | SAMPLE I.D. | |
|-------------------------------|--------------------------|----------|-----------------|--------------------------|
| | BACK GROUND SAMPLE | TTL C | B-6-M LIQUID | B-6-M BI COMPOSITE |
| Organic Solvents (mg/kg) | | N.A. | | N.D. |
| Isobutyl Acetate | N.T. | | N.D. | |
| Acetone | N.T. | | TRACE | |
| Methanol | N.T. | | TRACE | |
| Isobutyl Alcohol | N.T. | | N.D. | |
| Isopropanol | N.T. | | N.D. | |
| Methyl Ethyl Ketone | | | N.D. | |
| Methyl Isobutyl Ketone | | | 7.0 | |
| Petroleum Hydrocarbon (mg/kg) | N.T. | N.A. | N.T. | N.T. |
| Oil & Grease (mg/kg) | <1.0 | N.A. | N.T. | N.T. |
| CAM Metals (mg/kg) | | | | |
| Antimony | <2.5 | 500 | N.D. | <2.5 |
| Arsenic | 12.7 | 500 | N.D. | 3.3 |
| Barium | 43.4 | 10,000 | N.D. | 43.7 |
| Beryllium | <1.0 | 75 | N.D. | <1.0 |
| Cadmium | <0.5 | 100 | N.D. | <0.5 |
| Chromium (Total) | 6.3 | 2,500 | N.D. | 3.9 |
| Cobalt | 4.3 | 8,000 | 0.01 | 2.6 |
| Copper | 8.6 | 250 | N.D. | 7.5 |
| Lead | <2.5 | 1,000 | N.D. | <2.5 |
| Mercury | <0.1 | 20 | 0.0003 | <0.06 |
| Molybdenum | 6.9 | 3,500 | N.D. | <1.0 |
| Nickel | 4.1 | 2,000 | 0.01 | 3.5 |
| Selenium | <2.5 | 100 | 0.0013 | <2.5 |
| Silver | <2.5 | 500 | N.D. | <2.5 |
| Thallium | <2.5 | 700 | N.D. | <2.5 |
| Vanadium | 12.7 | 2,400 | N.D. | 11.9 |
| Zinc | 21.4 | 2,500 | 1.54 | 20.7 |
| Aluminum (mg/kg) | 18.9 | N.A. | N.T. | N.T. |
| Sodium (mg/kg) | N.T. | N.A. | N.T. | N.T. |
| Others | | | | N.T. |
| pH | 8.19 | N.A. | 7.0 | |
| Chloride (mg/kg) | N.T. | N.A. | N.T. | |
| Cyanide (mg/kg) | N.T. | N.A. | N.T. | |
| Fluoride (mg/kg) | N.T. | 18,000 | N.T. | |
| Nitrate (mg/kg) | N.T. | N.A. | N.T. | |
| Sulfate (mg/kg) | N.T. | N.A. | N.T. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* mg/kg

TANK NUMBER B-6-N

FIELD PROGRAM

One boring, B-6-B-B1, and two suction lysimeters, B-6-N-SL1 and B-6-N-SL2, were drilled/installed to monitor subsurface conditions at overspill collection Tank B-6-N.

BORING B-6-N-B1/SUCTION LYSIMETER B-6-N-SL2

Monitoring Installations - Boring B-6-N-B1 was installed slightly west of the approved location. This was because it was possible to drill closer to the tank than originally anticipated. Upon completion, the boring was cased to 10 feet and a suction lysimeter was installed. This lysimeter was installed, per RWQCB directives, in lieu of the vapor monitoring well originally proposed. Both the actual and approved locations of the boring/suction lysimeter are indicated on the site map.

Sampling Intervals - Soil samples were taken at depths of 9, 14, 24, and 39 feet, as approved in the Work Plan.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the first 3 feet of the boring. At 3 feet the sand became coarser, and the gravel and cobble fraction increased. At 15 feet the soil became finer and slightly more moist. From 3 to 15 feet the color changed from brown to variegated light brown, and from 15 feet to depth the soil was dark brown.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil throughout the boring had a slight odor indicating possible contamination.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in two, 55-gallon drums approved for storage of hazardous waste.

SUCTION LYSIMETER B-6-N-SL1

Monitoring Installations - Suction Lysimeter B-6-N-SL1 was installed slightly east of the approved location due to rig access problems. The lysimeter was installed, per RWQCB directives, in lieu of the vapor monitoring well originally proposed. Both the actual and approved locations of the installation are indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 12 feet, as approved in the field by Carol Kawamoto of the RWQCB.

Field Observations - The medium grain size and brown color of the sand remained consistent throughout the first 7 feet of the lysimeter. At 7 feet the sand became coarser, and the gravel and

TANK B-6-N (continued)

cobble fraction increased. At 7 feet the color changed slightly from brown to variegated light brown, which corresponds with the general grain size increase at the same depth.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - A liquid sample of the contents of the tank was analyzed for volatile organics, CAM metals, and pH. Based on field observations indicating the potential presence of volatile organics in the soil samples, the 9-10 foot sample, a 24-39 foot composite and a sample from Suction Lysimeter B-6-N-SL1 were analyzed in the laboratory. The samples were analyzed for volatile organics only rather than the volatile organics and CAM metals specified in the Work Plan.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-N. A total of five volatile organics were detected in the soil samples, suggesting that the soils had been contaminated. The concentration levels range from a low of 10.5 ug/kg of benzene to a high of 20 mg/kg of butyl acetate.

CONCLUSIONS

There is no record/indication that the tank has been used for storing any of the organics found in the soil samples. In addition, if the tank were leaking, the levels of contaminants in the soil would be expected to be much higher. Thus, it is likely that the origin of contamination is from other sources such as surface spills rather than the leakage of the tank. It is known that benzene was used as a fuel booster in the past and carbon disulfide is an active rodenticide ingredient used in the area.

RECOMMENDATION

Additional subsurface sampling and analysis should be conducted to further determine whether the origin of the contamination is from the leakage of the tank and to quantify the extent of contamination.

TANK NUMBER B-6-N supplement

ADDITIONAL INVESTIGATIONS

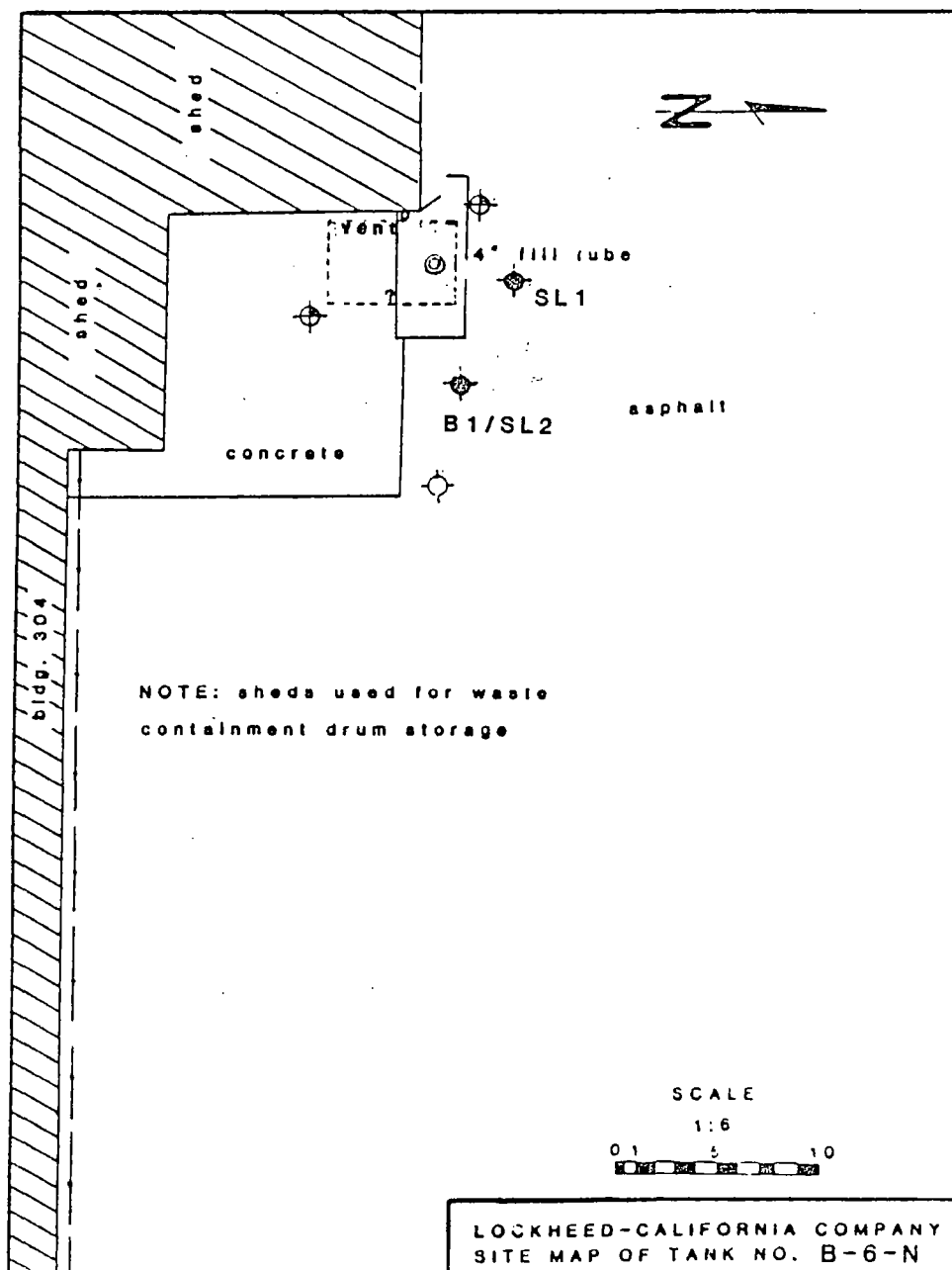
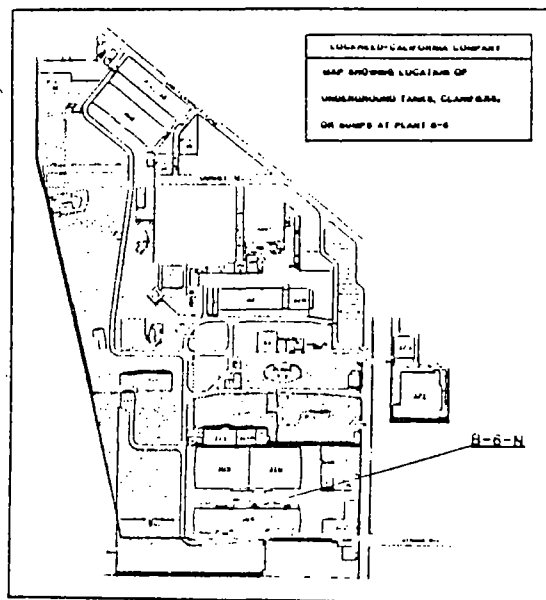
The analysis of soil samples collected near Tank B-6-N during the initial drilling indicated low to moderate levels of benzene and ethyl acetate. To determine if the contamination in the soil is the result of tank leakage, Tank B-6-N was hydrostatically tested by Horner Creative Metals, Inc. of Kawkawlin, Michigan on May 31, 1985. The test is a hydrostatic evaluation and can detect leaks in the tanks and related piping systems with a level of detection of ± 0.05 gallons per hour. This is the required level of detection according to National Fire Prevention Authority (N.F.P.A.), #329. The results of the test (Appendix C) indicated that the tank is "certified tight" as is, not leaking within the accepted level of detection.

It is therefore concluded that the contamination present in the nearby soil did not originate from leakage of Tank B-6-N. It is possible that the contamination may be the result of leakage from drums commonly stored in the area; of overfilling the tank, which receives run off from a nearby drum storage area; or fugitive surface spillage of other materials.

FURTHER RECOMMENDATIONS

It is recommended that no drums be stored outside of the nearby bermed area specifically designed for the storage of drums. Also, the tank should be checked and pumped, if necessary, on a regular basis. This should prevent overfilling of the tank and eliminate future liquid discharge into the soil.

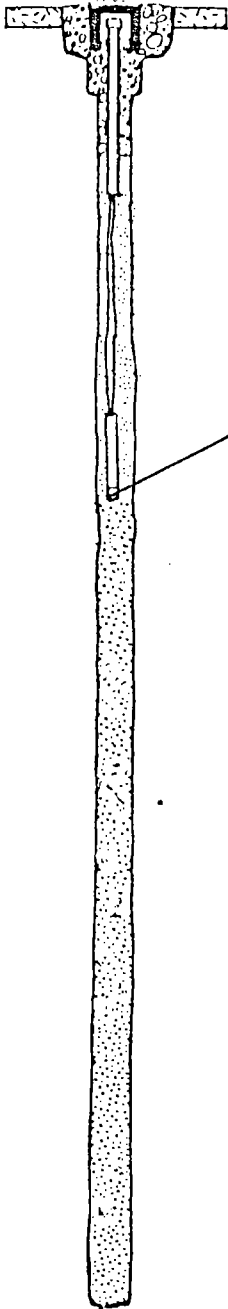
0840



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|-------------------------------------|
| Tank No. | b-o-n |
| Plant No./Nearest Bldg. | Ba/Bldg. 304 (N Side) |
| Tank: | Location |
| | 2801 N. hollywood way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | UNK |
| | User/Process |
| | UNK |
| | Contents (past, CAS No., date) |
| | UNK |
| | (present, CAS No.) |
| | waste water from storage solvent |
| | Construction Materials |
| | UNK |
| | Geometry |
| | Cylindrical |
| | Depth to Top |
| | UNK, Prob. same as b-o-n |
| | Depth to Invert |
| | UNK, Prob. same as b-o-n |
| | Diameter |
| | UNK, Prob. same as b-o-n |
| | Length (1) |
| | UNK |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | UNK |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Sites: | Paving Material/Thickness |
| | Asphalt/Concrete |
| | Appearance |
| | Asphalt with large concrete patches |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | H.S. Auger |
| | Borings (No.) |
| | 1 |
| | Sample depths |
| | 61/5, 14, 24, 39 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 2 |
| | Sample Depths |
| | SL1/12.5 ft SL2/REF. TO B1 |
| | Completion Interval |
| | SL1/10 ft SL2/10 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 2 |
| | Parameters |
| | pH, CHH |
| | No. of Tank Soil Samples |
| | 1 (Comp.) |
| | Parameters |
| | Vol. Org. |

| | |
|-------------------------|---------------------------------------|
| Tank No. | B-2-H |
| Plant No./Nearest Bldg. | Bldg. 304 in side |
| Tank: | Location |
| | 1501 N. HOLLYWOOD AVE. |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | UNK |
| | User/Process |
| | UNK |
| | Contents (past, CDS No., date) |
| | UNK |
| | (present, CDS No.) |
| | WASTE WATER TREATMENT STORAGE SOLVENT |
| | Construction Materials |
| | UNK |
| | Diameter |
| | Cylindrical |
| | Depth to Top |
| | UNK, PROD. SAME AS B-2-H |
| | Depth to Invert |
| | UNK, PROD. SAME AS B-2-H |
| | Diameter |
| | UNK, PROD. SAME AS B-2-H |
| | Length (ft) |
| | UNK |
| | Containment |
| | NONE |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | UNK |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Asphalt/Concrete |
| | Appearance |
| | Asphalt with large concrete patches |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | M.S. AUGER, Integrity test |
| | Borings (No.) |
| | 1 |
| | Sample Depths |
| | 01/7.14, 24.35 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 2 |
| | Sample Depths |
| | SL1/12.5 ft SL2/REF. TO B1 |
| | Completion Interval |
| | SL1/10 ft SL2/10 ft |
| Laboratory program (4) | |
| | No. of Tank Content Samples |
| | 2 |
| | Parameters |
| | 20, CDS |
| | No. of Tank Soil Samples |
| | 1, CDS |
| | Parameters |
| | Vol. Org. |

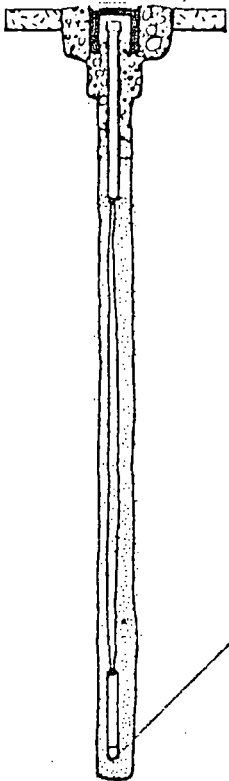
| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|----------------------------------------------|
|  | - 0 - | | | - Asphalt |
| | - 2 - | | | - Sand, medium to coarse grain, brown, moist |
| | - 4 - | | | - Color change lighter & coarser |
| | - 6 - | | | |
| | - 8 - | | | |
| | - 10 - | | 15 | - Sand, medium grained to cobbly, variegated |
| | - 12 - | | | |
| | - 14 - | | 32 | finer grain, darker, occasional small gravel |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 50 | |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | | - Cobbles, thin layer |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 56 | |

COMPLETION & BACKFILL

- Suction lysimeter at 10 ft
- Concrete, 0-2 ft
- Bentonite, 2-5 ft
- Clean sand, 5-7 ft
- Clean sand & native mix 7-11 ft
- Clean sand, 11-40 ft

TANK NO. B-6-NBORING NO. B-6-N-B1

0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|----------------------------------------------------------------|--------------|------------------------------------------------------------------|
|  | - 0 - | Asphalt | | - Asphalt |
| | - 1 - | Sand, medium grain w/gravel, brown, occasional cobbles to 3-in | | - Sand, medium grain w/gravel, brown, occasional cobbles to 3-in |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | - Sand, fine to medium grain, variegated, occasional cobbles |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | 36 | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at 10 ft
- Concrete, 0-3 ft
- Bentonite, 3-4 ft
- Clean sand, 4-6 ft
- Clean sand & native mix 6-12.5 ft

TANK NO. B-6-NSUCTION LYSIMETER NO. B-6-N-SL1

TABLE B-6-N: CHEMICAL ANALYSES

0840

| PARAMETER | SAMPLE I.D. | | | | | |
|-------------------------------|-------------|--------|--------|----------|------------|-----------|
| | BACK | T TLC | B-6-N | B-6-N | B-6-N | B-6-N |
| | GROUND | | LIQUID | 81 | 81 (COMP.) | SL2 |
| | SAMPLE | | | 9-10 ft. | 24-39 ft. | 12-13 ft. |
| Organic Solvents (ug/kg) | | N.A. | | | | |
| Benzene | <0.2 | | N.T. | 0.105 | N.D. | N.D. |
| Carbon Disulfide | | | N.T. | N.D. | 0.0254 | N.D. |
| Toluene | <0.4 | | N.T. | 0.0288 | N.T. | N.D. |
| Isobutyl Acetate | N.T. | | 11.0 | N.T. | N.T. | N.D. |
| Butyl Acetate | N.T. | | N.T. | N.T. | N.T. | 20.0 |
| Acetone | N.T. | | 98.0 | N.T. | N.T. | N.D. |
| Carbitol | N.T. | | N.T. | N.T. | N.T. | 5.6 |
| Methanol | N.T. | | 20.0 | N.T. | N.T. | N.D. |
| Isobutyl Alcohol | N.T. | | 170.0 | N.T. | N.T. | N.D. |
| Isopropanol | N.T. | | 130.0 | N.T. | N.T. | N.D. |
| Methyl Ethyl Ketone | N.D. | | 190.0 | N.D. | N.D. | N.D. |
| Methyl Isobutyl Ketone | N.D. | | 490.0 | N.D. | N.D. | N.D. |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | N.D. | | | |
| Arsenic | 12.7 | 500 | N.D. | | | |
| Barium | 43.4 | 10,000 | N.D. | | | |
| Beryllium | <1.0 | 75 | N.D. | | | |
| Cadmium | <0.5 | 100 | 0.03 | | | |
| Chromium (Total) | 6.3 | 2,500 | 0.08 | | | |
| Cobalt | 4.3 | 8,000 | 0.04 | | | |
| Copper | 8.6 | 250 | 0.17 | | | |
| Lead | <2.5 | 1,000 | 0.04 | | | |
| Mercury | <0.1 | 20 | 0.0006 | | | |
| Molybdenum | 6.9 | 3,500 | N.D. | | | |
| Nickel | 4.1 | 2,000 | 0.02 | | | |
| Selenium | <2.5 | 100 | 0.0022 | | | |
| Silver | <2.5 | 500 | N.D. | | | |
| Thallium | <2.5 | 700 | N.D. | | | |
| Vanadium | 12.7 | 2,400 | N.D. | | | |
| Zinc | 21.4 | 2,500 | 6.21 | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.D. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.D. | N.T. | N.T. | N.T. |
| Others | | | | N.T. | N.T. | N.T. |
| pH | 8.19 | N.A. | 6.80 | | | |
| Chloride (ug/kg) | N.T. | N.A. | N.T. | | | |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. | | | |
| Fluoride (ug/kg) | N.T. | 18,000 | N.T. | | | |
| Nitrate (ug/kg) | N.T. | N.A. | N.T. | | | |
| Sulfate (ug/kg) | N.T. | N.A. | N.T. | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

FIELD PROGRAM

Two borings, B-6-O-B1 and B-6-O-B2, and two vapor monitoring wells, B-6-O-MV1 and B-6-O-MV2, were drilled/installed to monitor subsurface conditions Tank B-6-O.

BORING B-6-O-B1

Monitoring Installations - Boring B-6-O-B1 was drilled slightly north and west of the approved location due to an underground fire protection line. Both the actual and approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at depths of 6, 17, 22, 30 and 40 feet, according to the approved Work Plan. However, the contamination present necessitated shifting the sample intervals to 5, 10, 22, 27, 32 and 40 feet.

Field Observations - The medium-to-coarse grain size and brown color of the sand remained consistent throughout the entire boring. There is a layer of asphalt 2 feet below existing grade. The two layers are separated by a sand layer approximately 1.5 feet thick.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil at 13 feet had a strong solvent odor indicating possible contamination. The vapors from the soil samples were measured in the headspace of plastic bags with an HNU PID meter. At 13 feet, the HNU readings averaged 300 ppm; at 16 feet HNU readings decreased to an average of 200 ppm; at 30 feet, average readings were again 300 ppm. HNU readings were duplicated with only a small variance of values.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in three 55-gallon drums approved for storage of hazardous waste.

BORING B-6-O-B2

Monitoring Installations - Boring B-6-O-B2 was drilled as indicated on the site map. This boring was not included on the original Work Plan and was drilled at the request of Mr. Al Novak, RWQCB.

Sampling Intervals - Soil samples were taken at depths of 5, 10, 22, 32 and 40 feet as approved in the field by Mr. Novak.

Field Observations - The medium-to-coarse grain size and brown color of the sand remained consistent throughout the entire boring. There is a layer of asphalt 2 feet below existing grade.

TANK B-6-O (continued)

The two layers are separated by a sand layer approximately 1.5 feet thick. The frequency of cobbles increased at 9 feet and continued to 10 feet.

The soil at 5 feet had a slight odor indicating possible contamination. The vapors from the soil samples were measured in the headspace of plastic bags with an HNU PID meter. At 10 feet, the HNU readings averaged 300 ppm; after 10 feet, HNU readings became sporadic and disappeared completely at 20 feet. HNU readings were duplicated with only a small variance of values.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in a 55-gallon drum approved for storage of hazardous waste.

VAPOR MONITORING WELL B-6-O-MV1

Monitoring Installations - Vapor Monitoring Well B-6-O-MV1 was installed slightly north of the approved location due to reassessment of the tank location. Both the actual and approved locations of the well are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at a depth of 12 feet, according to the Work Plan. However, the monitoring well was placed slightly deeper than the approved completion depth to insure that a leak in the very bottom of the tank would be detected. Monitoring below the tank is necessary because the sand that predominates the lithology is so highly conductive in the vertical sense that a contaminant liquid plume will show virtually no lateral expression. The sample was taken directly from cuttings on the auger flights at the surface because a large boulder at 13 feet prevented ring sampling.

The auger cut samples are subject to volatilization. Further, they may represent soil from just below the surface to 13 feet due to soil caving onto the auger flights. As the tank contains diesel and gasoline, the possible volatilization of the lighter organic fractions from the auger cut samples should not significantly alter the results.

Field Observations - The medium-to-coarse grain size and brown color of the sand remained consistent throughout the entire well. The frequency of cobbles increased at 13 feet.

There were no indications of contamination.

VAPOR MONITORING WELL B-6-O-MV2

Monitoring Installations - Vapor Monitoring Well B-6-O-MV2 was installed slightly west of the approved location due to

TANK B-6-O (continued)

reassessment of the tank location and rig access problems. Both the actual and approved locations of the well are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at a depth of 12 feet, according to the Work Plan. However, the depth of the sample was increased to 13 feet due to uncertainty regarding exact tank dimensions. Because of the absence of any layers of low permeability in the upper portions of the soil horizons, and the loose, highly conductive nature of the sands that predominate the lithology, it is unlikely that a slight variance in the sampled interval will significantly alter the chemical concentration profile of the soil.

Field Observations - The medium-coarse grain size and brown color of the sand remained consistent throughout the entire well.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - A liquid sample of the contents of the tank was collected for laboratory analysis. Based on field observations indicating the potential presence of volatile organics in the soil samples, individual depth samples, rather than a composite sample, were analyzed in the laboratory. Hydrocarbons were analyzed in addition to the tests approved in the Work Plan.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-O.

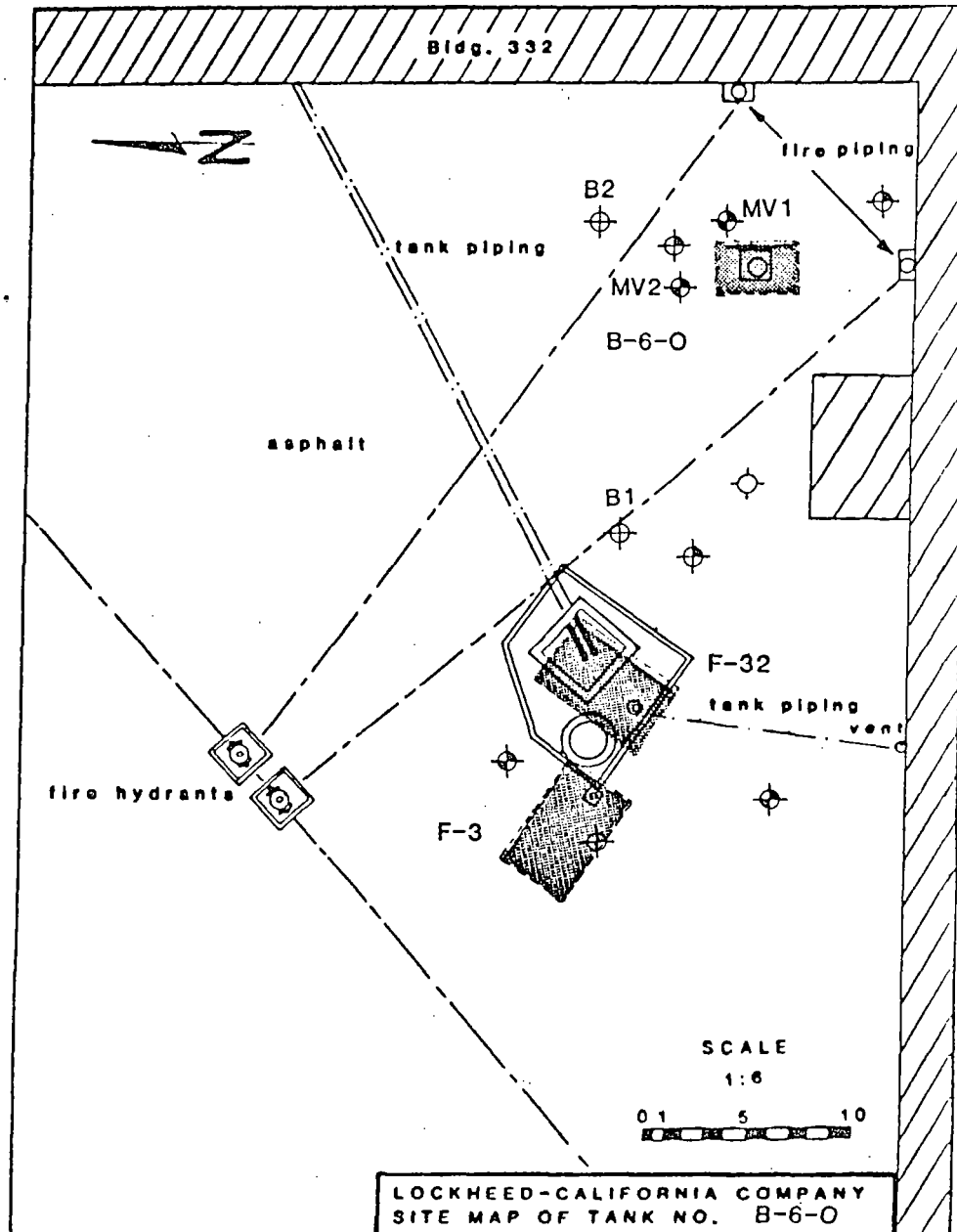
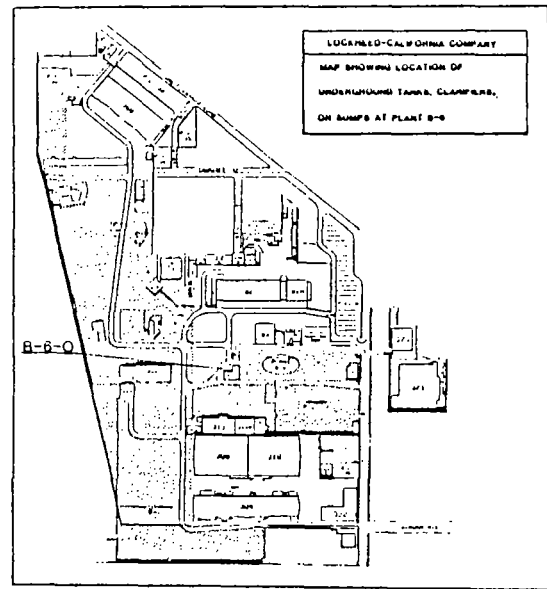
The liquid sample was characterized as 100 percent hydrocarbons. Low levels of petroleum hydrocarbons (18 to 114 mg/kg) and a trace of chloromethane (3.8 ug/mg) were detected in the soil samples.

CONCLUSIONS

Because significant contamination was noted in the field and virtually no contamination was found in the laboratory, the results are inconclusive. It is thought that the contaminate may have been so volatile as to have 'flashed' before the samples reached the laboratory, despite measures taken to prevent such volatilization.

RECOMMENDATION

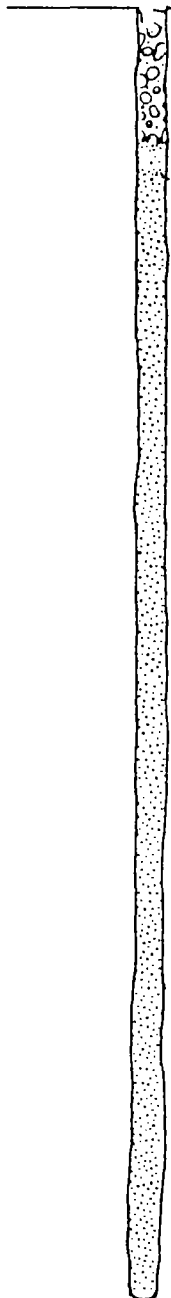
Alternate sampling methods, including but not limited to vacuum pumping through Tennex tubes, are being developed.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|----------------------------------------------------|
| Tank No. | B-6-B |
| Plant No./Nearest Bldg. | 601 Bldg. 332 (NW Side) |
| Tank: | Location |
| | 2801 N. Hollywood Hwy |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | UNK |
| | User/Process |
| | UNK |
| | Contents (past, CAS No., date) |
| | UNK |
| | (present, CAS No.) |
| | Diesel, Gas Mix |
| | Construction Materials |
| | UNK |
| | Geometry |
| | Cylindrical |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | UNK |
| | Diameter |
| | UNK |
| | Length (ft) |
| | UNK |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | UNK |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Asphalt |
| | Appearance |
| | Fair-Good |
| | Surface Contamination |
| | None |
| Drilling Program | Log Type/Requirements (3) |
| | H.S. Auger |
| | Borings (No.) |
| | 2 |
| | Sample Depths |
| | B1/5, 10, 22, 32, 40 ft B2/5, 10, 22, 32, 40 ft |
| | Vapor Wells/Cylinders (No.) |
| | 2 |
| | Sample Depths |
| | NV1/10 ft NV2/10 ft |
| | Completion Interval |
| | NV1/3-13.5 ft NV2/3-13.5 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 1 |
| | Parameters |
| | Vol. Org. |
| | No. of Tank Soil Samples |
| | 2 |
| | Parameters |
| | Vol. Org., Hydrocarbons |

0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------|--------------|---------------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 2 - | Sand & gravel | | Sand & gravel |
| | - 4 - | Asphalt | | Asphalt |
| | - 6 - | Sand, medium to coarse grain, some gravel, brown occasional cobbles | 30 | Sand, medium to coarse grain, some gravel, brown occasional cobbles |
| | - 8 - | | | |
| | - 10 - | | | |
| | - 12 - | | 30 | |
| | - 14 - | | | Strong petroliferous odor to 24 ft |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | 50 | |
| | - 26 - | | | |
| | - 28 - | | 65 | |
| | - 30 - | | | |
| | - 32 - | | | |
| | - 34 - | | 50 | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Concrete, 0-4 ft
- Bentonite & clean sand mix 4-40 ft

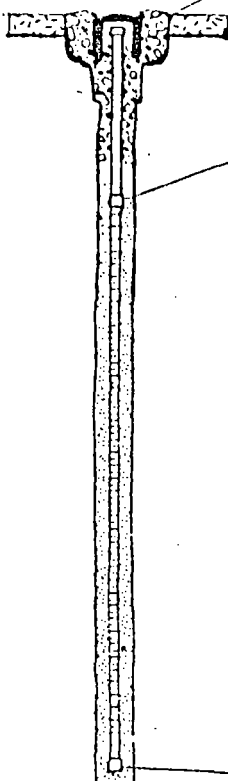
TANK NO. B-6-OBORING NO. B-6-O-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|----------------------|--------|-----|--------------|---------------------------------------------------------------------------------------|
| | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, medium grain, |
| | - 4 - | | | Asphalt |
| | - 6 - | | 35 | Sand, medium to coarse grain, brown, w/gravel occasional cobbles at 5 ft, slight odor |
| | - 8 - | | | |
| | - 10 - | | 40 | Cobbles vapor (sweet solvent type), occasional odor similar to B-6-O-B1 |
| | - 12 - | | | |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | 50 | |
| | - 24 - | | | |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | 50 | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 39 | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, 0.5-4 ft
- Bentonite, 4-5 ft
- Native material, 5-40 ft

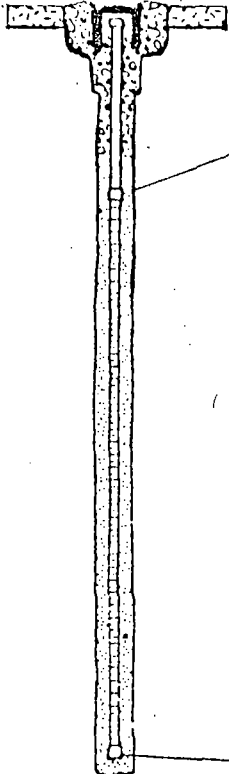
TANK NO. B-6-OBORING NO. B-6-O-B2

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|---------|--------------|-----------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Grab | | Sand, medium to coarse grain, gravelly, brown |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | Grab | | Cobbles |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, .3-3 ft
- Screened 2-in. I.D. PVC pipe, 3-13.5 ft
- Concrete, 0-1.5 ft
- Bentonite, 1.5-2.5 ft
- Clean sand, 2.5-13.5 ft

TANK NO. B-6-OMONITORING WELL NO. B-6-O-MV1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------|--------------|-------------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Sand, medium to coarse grain, brown, occasional pebbles to gravel | | Sand, medium to coarse grain, brown, occasional pebbles to gravel |
| | - 2 - | surface sample-diesel gasoline odor | | surface sample-diesel gasoline odor |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | 50 | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, .3-3 ft
- Screened 2-in I.D. PVC pipe, 3-13.3 ft
- Concrete, 0-1 ft
- Bentonite, 1-2.5 ft
- Clean sand, 2.5-13.5 ft

TANK NO. B-6-OMONITORING WELL NO. B-6-O-MV2

| PARAMETER | | | SAMPLE I.D. | | | | | | |
|-------------------------------|--------------------------|---------|-------------|-------|--------|--------|--------|--------|--------|
| | BACK GROUND SAMPLE | TTL | | | | | | | |
| | | | B-6-0 | B-6-0 | B-6-0 | B-6-0 | B-6-0 | B-6-0 | B-6-0 |
| | | | LIQUID | B1 | B1 | B1 | B1 | B1 | B1 |
| | | | | 5 ft. | 10 ft. | 22 ft. | 27 ft. | 32 ft. | 40 ft. |
| Volatile Organics (ug/kg) | | N.A. | | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Benzene | <0.2 | | N.D. | | | | | | |
| Carbon Disulfide | | | N.D. | | | | | | |
| Carbon Tetrachloride | <0.1 | | * 0.06 | | | | | | |
| Chloroform | <0.1 | | * 0.81 | | | | | | |
| 1,1-Dichloroethene | <0.1 | | N.D. | | | | | | |
| Methylene Chloride | <0.5 | | N.D. | | | | | | |
| Tetrachloroethylene | <0.4 | | N.D. | | | | | | |
| 1,1,1-Trichloroethane | <0.2 | | * 0.0202 | | | | | | |
| Trichloroethylene | <0.3 | * 2,040 | N.D. | | | | | | |
| Toluene | <0.4 | | N.D. | | | | | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | 100 % | N.D. | 15.5 | N.D. | N.D. | N.D. | N.D. |
| Oil & Grease (mg/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | | | | | | | |
| Arsenic | 12.7 | 500 | | | | | | | |
| Barium | 43.4 | 10,000 | | | | | | | |
| Beryllium | <1.0 | 75 | | | | | | | |
| Cadmium | <0.5 | 100 | | | | | | | |
| Chromium (Total) | 6.3 | 2,500 | | | | | | | |
| Cobalt | 4.3 | 8,000 | | | | | | | |
| Copper | 8.6 | 250 | | | | | | | |
| Lead | <2.5 | 1,000 | | | | | | | |
| Mercury | <0.1 | 20 | | | | | | | |
| Molybdenum | 6.9 | 3,500 | | | | | | | |
| Nickel | 4.1 | 2,000 | | | | | | | |
| Selenium | <2.5 | 100 | | | | | | | |
| Silver | <2.5 | 500 | | | | | | | |
| Thallium | <2.5 | 700 | | | | | | | |
| Vanadium | 12.7 | 2,400 | | | | | | | |
| Zinc | 21.4 | 2,500 | | | | | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Others | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| pH | 8.19 | N.A. | | | | | | | |
| Chloride (ug/kg) | N.T. | N.A. | | | | | | | |
| Cyanide (ug/kg) | N.T. | N.A. | | | | | | | |
| Fluoride (ug/kg) | N.T. | 18,000 | | | | | | | |
| Nitrate (ug/kg) | N.T. | N.A. | | | | | | | |
| Sulfate (ug/kg) | N.T. | N.A. | | | | | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

| PARAMETER | BACK GROUND SAMPLE | TTL | B-6-0 B2 5 ft. | B-6-0 B2 10 ft. | B-6-0 B2 22 ft. | B-6-0 B2 32 ft. | B-6-0 B2 40 ft. | B-6-0 MV1 1 ft. | B-6-0 MV1 13 ft. |
|-------------------------------|--------------------------|---------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Volatile Organics (ug/kg) | | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.T. |
| Benzene | <0.2 | | | | | | | | |
| Carbon Disulfide | | | | | | | | | |
| Carbon Tetrachloride | <0.1 | | | | | | | | |
| Chloroform | <0.1 | | | | | | | | |
| 1,1-Dichloroethene | <0.1 | | | | | | | | |
| Methylene Chloride | <0.5 | | | | | | | | |
| Tetrachloroethylene | <0.4 | | | | | | | | |
| 1,1,1-Trichloroethane | <0.2 | | | | | | | | |
| Trichloroethylene | <0.3 | * 2,040 | | | | | | | |
| Toluene | <0.4 | | | | | | | | |
| Petroleum Hydrocarbon (mg/kg) | N.T. | N.A. | 1.8 | N.D. | N.D. | N.D. | N.D. | ** 114 | <0.1 |
| Oil & Grease (mg/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAN Metals (mg/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Antimony | <2.5 | 500 | | | | | | | |
| Arsenic | 12.7 | 500 | | | | | | | |
| Barium | 43.4 | 10,000 | | | | | | | |
| Beryllium | <1.0 | 75 | | | | | | | |
| Cadmium | <0.5 | 100 | | | | | | | |
| Chromium (Total) | 6.3 | 2,500 | | | | | | | |
| Cobalt | 4.3 | 8,000 | | | | | | | |
| Copper | 8.6 | 250 | | | | | | | |
| Lead | <2.5 | 1,000 | | | | | | | |
| Mercury | <0.1 | 20 | | | | | | | |
| Molybdenum | 6.9 | 3,500 | | | | | | | |
| Nickel | 4.1 | 2,000 | | | | | | | |
| Selenium | <2.5 | 100 | | | | | | | |
| Silver | <2.5 | 500 | | | | | | | |
| Thallium | <2.5 | 700 | | | | | | | |
| Vanadium | 12.7 | 2,400 | | | | | | | |
| Zinc | 21.4 | 2,500 | | | | | | | |
| Aluminum (mg/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Sodium (mg/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Others | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | |
| pH | 8.19 | N.A. | | | | | | | |
| Chloride (mg/kg) | N.T. | N.A. | | | | | | | |
| Fluoride (mg/kg) | N.T. | 18,000 | | | | | | | |
| Nitrate (mg/kg) | N.T. | N.A. | | | | | | | |
| Sulfate (mg/kg) | N.T. | N.A. | | | | | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* mg/kg

** Diesel Fuel

TANK NUMBER B-6-P

FIELD PROGRAM

One suction lysimeter, B-6-P-SL1, was installed to monitor subsurface conditions at Clarifier B-6-P.

SUCTION LYSIMETER B-6-P-SL1

Monitoring Installations - Suction Lysimeter B-6-P-SL1 was installed to monitor both Clarifier B-6-P and diesel Tank B-6-F27. This was because the extremely limited access around Clarifier B-6-P prevented completion of the lysimeter at the original location. Both the actual and approved locations of the lysimeter are indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at a depth of 12 feet, according to the approved Work Plan. However, the sample was taken at 15 feet in order to monitor Tank B-6-F27 in addition to Clarifier B-6-P.

Field Observations - The medium to very coarse grain size and dark brown color of the sand remained consistent throughout the entire lysimeter. The frequency of cobbles remained sporadic to depth.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - A liquid sample of the contents of the tank was collected for laboratory analysis. The samples taken from Suction Lysimeter B-6-P-SL1 were composited and analyzed with the samples for Tank B-6-F27.

Laboratory Analysis - The pertinent laboratory analysis results are included in the Laboratory Program and Analysis section for Tank B-6-F27.

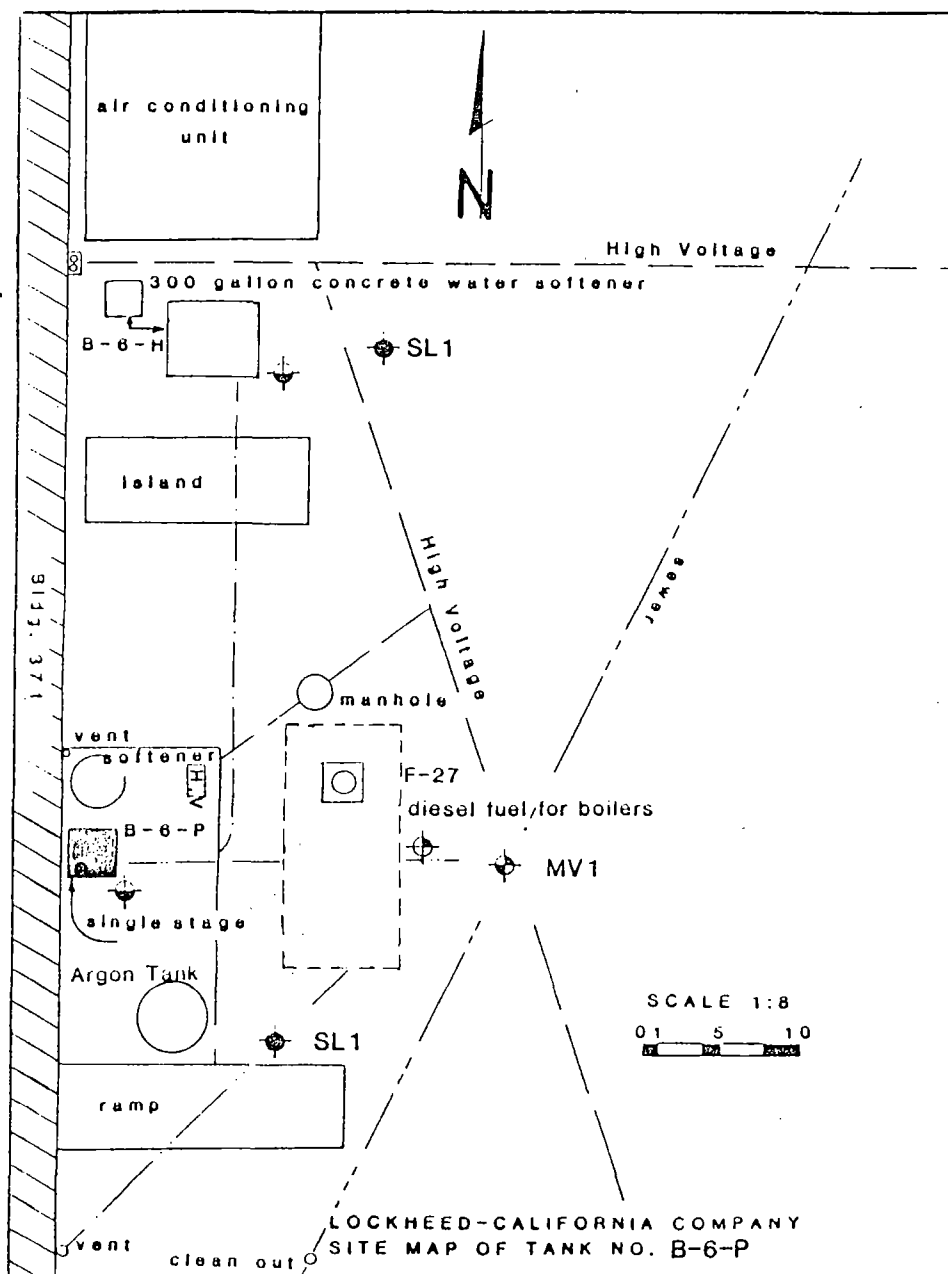
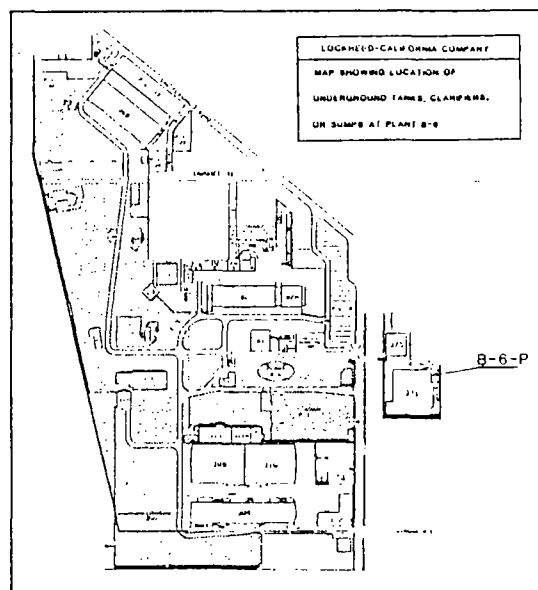
Low levels of petroleum hydrocarbons (10.7 mg/kg) were detected in the samples.

CONCLUSIONS

Based on field and laboratory analysis and field observations, it is concluded that the clarifier is not leaking. The low concentrations (10.7 mg/kg) of petroleum hydrocarbons are more likely due to surface spills and other surface sources than to a leaking tank. If the tank were leaking, the levels of contaminants in the soil would be expected to be much higher.

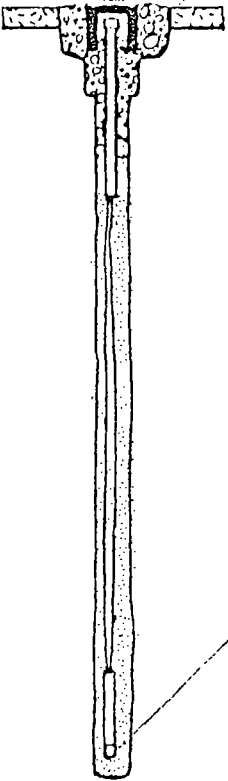
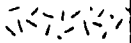


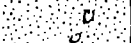


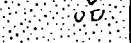
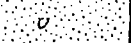


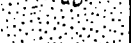

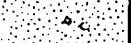
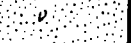


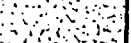
RECOMMENDATION

Proceed with quarterly monitoring of the well.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | | |
|-------------------------|--------------------------------|--------------------------------------------|
| Tank No. | B-6-r | |
| Plant No./Nearest Bldg. | Bs/Bldg. 371 (NW Side) | |
| Tank: | Location | 2601 N. Hollywood Way |
| | Installation Date | UNK |
| | Capacity, gal. | UNK |
| | User/Process | Single-stage clarifier |
| | Contents (past, CWS No., date) | UNK |
| | (present, CWS No.) | Poss. softener brine |
| | Construction Materials | Concrete |
| | Geometry | Square |
| | Depth To Top | UNK |
| | Depth To Invert | UNK |
| | Diameter | 3.2 ft width |
| | Length (1) | 3.2 ft |
| | Containment | none |
| | Corrosive Protection (2) | UNK |
| | Status | In service |
| Tank Piping: | Number | UNK |
| | Type | UNK |
| | Construction Mat. | UNK |
| Site: | Paving Material/Thickness | Concrete/Asphalt |
| | Appearance | Asphalt thoroughfare with concrete islands |
| | Surface Contamination | UNK |
| Drilling Program | Rig Type/Requirements (3) | H.S. Auger |
| | Borings (No.) | 0 |
| | Sample Depths | |
| | Vapor Wells/Lysimeters (No.) | 1 |
| | Sample Depths | SL1/15 ft |
| | Completion Interval | SL1/10 ft |
| Laboratory Program (4) | No. of Tank Content Samples | 2 |
| | Parameters | pH, CRR |
| | No. of Tank Soil Samples | 0 |
| | Parameters | NOTE: REFERENCE TO F-27 |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------|
|  | - 0 - |  | | - Asphalt |
| | - 1 - |  | | - Sand, medium grain, dark brown, moist, occasional cobbles |
| | - 2 - |  | | |
| | - 3 - |  | | |
| | - 4 - |  | | |
| | - 5 - |  | | |
| | - 6 - |  | | |
| | - 7 - |  | | |
| | - 8 - |  | | |
| | - 9 - |  | | |
| | - 10 - |  | | |
| | - 11 - |  | | |
| | - 12 - |  | | |
| | - 13 - |  | | |
| | - 14 - |  | | |
| | - 15 - |  | | |
| | - 16 - |  | 50 | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at 10 ft
- Concrete, 0-5 ft
- Bentonite, 5-7 ft
- Clean sand, 7-8 ft
- Clean sand & native mix
7-15 ft

TANK NO. B-6-PSUCTION LYSIMETER NO. B-6-P-SL1

TABLE B-6-P: CHEMICAL ANALYSES

0840

| PARAMETER | | | SAMPLE I.D. | |
|-------------------------------|--------------------------|----------|-----------------|---------------------------------------------|
| | BACK GROUND SAMPLE | TTL C | B-6-P LIQUID | B-6-P SLI (COMP. W/F27-MV1) 15-16 ft. |
| Organic Solvents (mg/kg) | | N.A. | N.T. | N.T. |
| Benzene | <0.2 | | | |
| Carbon Disulfide | | | | |
| Toluene | <0.4 | | | |
| Isobutyl Acetate | N.T. | | | |
| Butyl Acetate | N.T. | | | |
| Acetone | N.T. | | | |
| Carbitol | N.T. | | | |
| Methanol | N.T. | | | |
| Isobutyl Alcohol | | | | |
| Isopropanol | N.T. | | | |
| Methyl Ethyl Ketone | N.T. | | | |
| Methyl Isobutyl Ketone | N.T. | | | |
| Petroleum Hydrocarbon (mg/kg) | N.T. | N.A. | N.T. | 10.7 |
| Dil & Grease (mg/kg) | <1.0 | N.A. | N.T. | N.T. |
| CAN Metals (mg/kg) | | | | N.T. |
| Antimony | <2.5 | 500 | N.D. | |
| Arsenic | 12.7 | 500 | N.D. | |
| Barium | 43.4 | 10,000 | N.D. | |
| Beryllium | <1.0 | 75 | N.D. | |
| Cadmium | <0.5 | 100 | 0.01 | |
| Chromium (Total) | 6.3 | 2,500 | 0.07 | |
| Cobalt | 4.3 | 8,000 | 0.02 | |
| Copper | 8.6 | 250 | 0.57 | |
| Lead | <2.5 | 1,000 | 0.32 | |
| Mercury | <0.1 | 20 | 0.0006 | |
| Molybdenum | 6.9 | 3,500 | N.D. | |
| Nickel | 4.1 | 2,000 | 0.60 | |
| Selenium | <2.5 | 100 | 0.0003 | |
| Silver | <2.5 | 500 | N.D. | |
| Thallium | <2.5 | 700 | N.D. | |
| Vanadium | 12.7 | 2,400 | N.D. | |
| Zinc | 21.4 | 2,500 | 8.05 | |
| Aluminum (mg/kg) | 18.9 | N.A. | N.D. | N.T. |
| Sodium (mg/kg) | N.T. | N.A. | N.D. | N.T. |
| Others | | | | N.T. |
| pH | 8.19 | N.A. | 6.86 | |
| Flouride (mg/kg) | N.T. | 18,000 | N.T. | |
| Nitrate (mg/kg) | N.T. | N.A. | N.T. | |
| Sulfate (mg/kg) | N.T. | N.A. | N.T. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

TANK NUMBER B-6-Q

FIELD PROGRAM

One boring, B-6-Q-B1, and one vapor monitoring well, B-6-Q-MV1, were drilled/installed to monitor subsurface conditions at waste oil Sump B-6-Q.

BORING B-6-Q-B1/VAPOR MONITORING WELL B-6-Q-MV1

Monitoring Installations - Boring B-6-Q-B1 was drilled as indicated on the site map. Upon completion, the boring was backfilled with clean sand and bentonite to 20 feet and a vapor monitoring well was installed. The boring and vapor monitoring well were installed, per RWQCB directives, in lieu of the inspection originally planned.

Sampling Intervals - Soil samples were taken at depths of 3, 5, 10, 15, 23, 32 and 40 feet.

Field Observations - The medium fine to very coarse grain size and brown color of the sand remained consistent throughout the entire 40 feet of the boring. The frequency of cobbles increased at 5 feet and continued to 9 feet.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil at 10 feet to 33 feet had a strong odor, which decreased with depth, indicating possible contamination.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in three, 55-gallon drums approved for storage of hazardous waste.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - A liquid sample of the contents of the tank was collected for laboratory analysis. Based on field observations indicating the potential presence of volatile organics in the soil samples, individual depth samples, rather than a composite sample, were analyzed in the laboratory. Also, volatile organics were analyzed in addition to the hydrocarbons approved in the Work Plan.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-Q. A total of seven volatile organics were detected in the samples, suggesting that the soils had been contaminated. The concentration levels range from a low of 9.8 ug/kg of benzene at 40 feet to a high of 48.4 ug/kg of toluene at 5 feet.

TANK B-6-Q (continued)

CONCLUSIONS

The relatively high concentration of volatile organics at shallow depths near the bottom of the tank and the position of some volatile organic species with respect to depth strongly suggests that Sump B-6-Q is leaking. Although benzene and carbon disulfide were detected in the samples, those chemicals are not known to be in direct usage currently. Both chemicals can, however, be contaminants in fuels and solvents. It is known that benzene has been used as a fuel booster in the past and carbon disulfide is an active rodenticide ingredient used in the area.

RECOMMENDATION

Additional subsurface sampling and analysis should be conducted to further determine whether the origin of the contamination is from the leakage of the tank and to quantify the extent of contamination.

TANK NUMBER B-6-Q supplement

ADDITIONAL INVESTIGATIONS

Sump B-6-Q is a large, trench-like sump constructed to receive runoff from an adjacent concrete slab west of the sump. This slab, which is currently used as a drum storage area, was originally used to facilitate experimental fueling operations. The sump or trench is constructed of reinforced concrete and was poured monolithically. The trench is 100-feet long and drains into a two stage clarifier at the east end of the sump.

Chemical analysis of soil samples collected during the initial drilling indicated the presence of contamination in the soil near Sump B-6-Q. The contamination present consists of moderate to high levels of benzene, carbon disulfide, and toluene, (Table B-6-Q). Although the obvious source of contamination would be the Sump, B-6-Q, chemicals found in the soil are not known to currently be in direct usage. It was therefore, postulated that the source of these chemicals was fuel contaminates once used in the area. If area-wide fuel spillage had occurred, soil contamination should extend away from the sump in relatively equal proportions, as there is no major gradient or lithological variations in the area. This was not found to be the case.

Two 80-foot borings were drilled in December of 1984 to further delineate the chemical characteristics of the soil. Other than some petroleum hydrocarbon, no significant contamination was noted. The laboratory results of these boring samples from borings, B-6-82-T1 and B-6-82-T2, are included at the end of this report. Because these additional borings revealed no area-wide contamination, attention was again focused on Sump B-6-Q as being the most likely source. It was therefore recommended that a visual inspection be conducted to determine the integrity of the sump. This was done with approval by Mr. Al Novak, RWQCB.

Prior to the visual inspection, it was necessary to clean and pump the sump to expose all concrete surfaces. On the day of the visual inspection (May 24, 1985), the sump contained waste oil and a significant amount of compacted, sludge-like sediment. The sediment covered the length of the sump and ranged from 1 to 6 inches in thickness. Because the dense, compact nature of the sediment precluded pumping, it was necessary to loosen the

TANK NUMBER B-6-Q supplement continued

sediment with shovels prior to vacuuming. The entire sump and end clarifier were then cleaned with a strong jet of water from a high pressure fire hose. The remaining oil, sediment, and rinse water were pumped out upon inspection and transported to a licensed hazardous waste facility.

The condition of the sump upon inspection appeared to be generally poor. The concrete was deteriorated in many areas and there were several structural inadequacies related to poor construction techniques. The precise location and nature of the problems observed during the inspection of the sump are shown in the inspection diagram. The deteriorating or crumbling concrete is generally confined to the section of concrete near the top of the sump where the surface is angled approximately 45 degrees from vertical. Because this section of the sump is far above the typical liquid level, it is probably not a contributing factor to the adjacent soil contamination. There is, however, an area of deteriorated concrete on the east end of the sump floor that is a probable liquid conduit. The deteriorated area is circular, and is about 10 inches in diameter at the surface. The visible deterioration extends into the concrete about 2.5 inches, but it is very likely that the disturbed area extends throughout the remaining 1.5 inches of the floor thickness.

Other problems found during the inspection include a possible liquid conduit located 2.4 feet above the floor, at the outflow point to a 4-inch metal pipe. It is doubtful, however, that the fluid level in the trench ever reached this height. Also, along the intersection between the floor and south wall of the sump, there is a hollow space or gap, which extends partially through the concrete. This gap is apparently the result of poor placement of form boards during the construction of the sump. While the concrete present in the gap is not deteriorated, the remaining wall is relatively thin (2-inches thick) and should be considered as a possible conduit. The contamination present in the adjacent soil is most probably attributable to leakage through one or more of the possible conduits mentioned above. The fact that the sump does not currently contain constituents found in the adjacent soil does not exclude the possibility that the sump may have previously contained compounds which, in the environment, may biodegrade into the chemicals found in the soil. For example, carbon disulfide and organochlorine pesticides do not degrade readily in the environment. Such compounds may have been inadvertently introduced into the sump via a rodenticide possibly used in the area.

TANK NUMBER B-6-Q supplement continued

FURTHER RECOMMENDATIONS

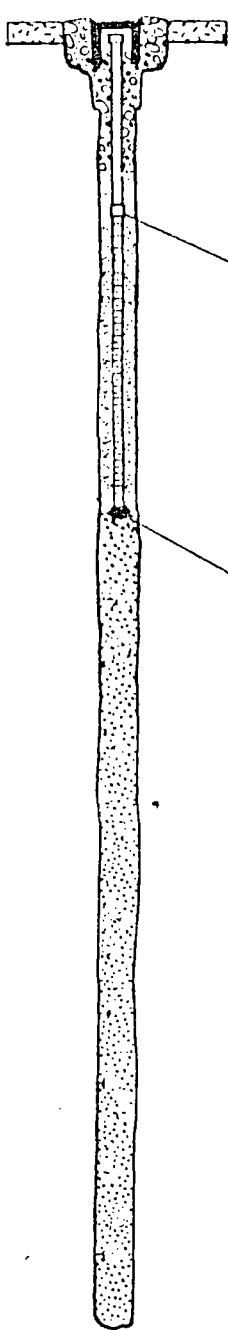
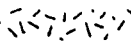
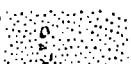

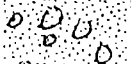
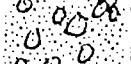
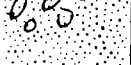
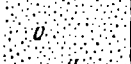


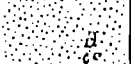




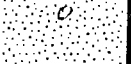






Because the entire sump is no longer in service and is slated for abandonment, no further action is recommended. Sump B-6-Q will likely be filled with clean sand, compacted in 6-inch lifts, and capped with concrete at grade.

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------|
| Tank No. | B-0-W |
| Plant No./Nearest Bldg. | 60/Bldg. 60 (S Side) |
| Tank: | Location |
| | 2861 N. Hollywood way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | UNK |
| | User/Process |
| | Drainage sump |
| | Contents (past, CWS no., date) |
| | UNK |
| | (present, CWS No.) |
| | Drainage water and oil |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | rectangular |
| | Depth to top |
| | UNK |
| | Depth to Invert |
| | 5 ft |
| | Diameter |
| | 4.5 ft width |
| | Length (L) |
| | 5.5 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Concrete |
| | Appearance |
| | Good |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig type/Requirements (3) |
| | H.S. Huger |
| | borings (No.) |
| | 1 |
| | Sample Depths |
| | 81/3, 5, 10, 15, 23, 32, 40 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 1 |
| | Sample Depths |
| | MVI/REF. TO B1 |
| | Completion Interval |
| | MVI/10-20 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 1 |
| | Parameters |
| | pH, hydrocarbons |
| | No. of Tank Soil Samples |
| | 4 |
| | Parameters |
| | pH, vol. Org. |

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|---------------------------------|
| Tank No. | 3-0-1 |
| Plant No./Nearest Bldg. | 606Bldg. 30 10 Sides |
| Tank: | Location |
| | 2501 N. Hollywood Way |
| | Installation Date |
| | UNK. |
| | Capacity, gal. |
| | UNK. |
| | User/Process |
| | Drainage sump |
| | Contents (past, CAS No., date) |
| | UNK. |
| | (present, CAS No.,) |
| | Drainage water and oil |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Rectangular |
| | Depth To Top |
| | UNK. |
| | Depth to Invert |
| | 5 ft |
| | Diameter |
| | 4.5 ft width |
| | Length (ft) |
| | 5.5 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | UNK. |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK. |
| | Type |
| | UNK. |
| | Construction Mat. |
| | UNK. |
| Site: | Paving Materials/Thickness |
| | Concrete |
| | Appearance |
| | Good |
| | Surface Contamination |
| | UNK. |
| Drilling Program | Rig Type/Requirements (3) |
| | H.S. Auger Inspection |
| | Borings (No.) |
| | 1 |
| | Sample Depths |
| | B1/3, 5, 10, 15, 23, 32, 40 ft |
| | T1/5, 10, 20, 30, 40, 65, 80 ft |
| | T2/5, 10, 20, 30, 40, 50 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 1 |
| | Sample Depths |
| | AVI/REF. TO 51 |
| | Completion Interval |
| | AVI/10-20 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 1 |
| | Parameters |
| | pH, hydrocarbons |
| | Vol. Org. |
| | No. of Tank Soil Samples |
| | 4 |
| | Parameters |
| | on, Vol. Org., hydrocarbons |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------|-------------------------------------------------------|
|  | - 0 - |  | | Concrete |
| | - 2 - |  | | Sand, fine to coarse grain, brown, occasional pebbles |
| | - 4 - |  | | |
| | - 6 - |  | 50 | Cobbles from 5 to 9 ft |
| | - 8 - |  | | |
| | - 10 - |  | 60 | |
| | - 12 - |  | | |
| | - 14 - |  | | strong odor |
| | - 16 - |  | 50 | |
| | - 18 - |  | | |
| | - 20 - |  | | |
| | - 22 - |  | | |
| | - 24 - |  | 55 | slight odor |
| | - 26 - |  | | |
| | - 28 - |  | | |
| | - 30 - |  | | |
| | - 32 - |  | | |
| | - 34 - |  | 60 | |
| | - 36 - |  | | |
| | - 38 - |  | | |
| | - 40 - |  | 50 | no odor |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0-3 ft
- Screened 2-in I.D. PVC pipe, 3-9 ft
- Concrete, 0-3 ft
- Bentonite, 3-9 ft
- Clean sand, 9-40 ft

TANK NO. B-6-QBORING NO. B-6-Q-B1

TABLE B-6-Q: CHEMICAL ANALYSES

0840

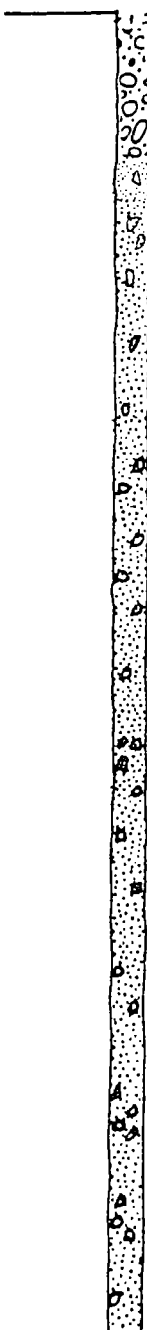
| PARAMETER | SAMPLE I.D. | | | | | | | | |
|-------------------------------|--------------------------|----------|--------|-------|--------|--------|--------|--------|--------|
| | BACK GROUND SAMPLE | TTL C | | | | | | | |
| | | | B-6-Q | B-6-Q | B-6-Q | B-6-Q | B-6-Q | B-6-Q | B-6-Q |
| | | | LIQUID | B1 | B1 | B1 | B1 | B1 | B1 |
| | | | | 5 ft. | 10 ft. | 15 ft. | 23 ft. | 32 ft. | 40 ft. |
| Volatile Organics (ug/kg) | | N.A. | | | | | | | |
| Benzene | <0.55 | | N.T. | 37.3 | N.D. | N.D. | 11.0 | 11.5 | 9.8 |
| Toluene | <0.75 | | N.T. | 48.5 | N.D. | N.D. | 27.0 | 29.3 | 32.0 |
| Isobutyl Acetate | N.T. | | * 0.1 | N.T. | N.T. | N.T. | N.T. | N.T. | N.D. |
| Carbon Disulfide | N.T. | | N.T. | 30.0 | N.D. | 23.8 | N.D. | N.D. | N.D. |
| 1,1-Dichloroethene | <0.35 | | N.T. | 16.5 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Acetone | N.T. | | * 2.7 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Trichloroethene | <0.24 | | N.T. | 37.0 | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | <0.48 | | N.T. | 24.0 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrachloroethene | <0.51 | | N.T. | 34.3 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Isopropanol | N.T. | | * 2.4 | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Methyl Ethyl Ketone | N.T. | | * 0.6 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | 4,400 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAH Metals (ug/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | | | | | | | |
| Arsenic | 12.7 | 500 | | | | | | | |
| Barium | 43.4 | 10,000 | | | | | | | |
| Beryllium | <1.0 | 75 | | | | | | | |
| Cadmium | <0.5 | 100 | | | | | | | |
| Chromium (Total) | 6.3 | 2,500 | | | | | | | |
| Cobalt | 4.3 | 8,000 | | | | | | | |
| Copper | 8.6 | 250 | | | | | | | |
| Lead | <2.5 | 1,000 | | | | | | | |
| Mercury | <0.1 | 20 | | | | | | | |
| Molybdenum | 6.9 | 3,500 | | | | | | | |
| Nickel | 4.1 | 2,000 | | | | | | | |
| Selenium | <2.5 | 100 | | | | | | | |
| Silver | <2.5 | 500 | | | | | | | |
| Thallium | <2.5 | 700 | | | | | | | |
| Vanadium | 12.7 | 2,400 | | | | | | | |
| Zinc | 21.4 | 2,500 | | | | | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Others | | | | | | | | | |
| pH | 8.19 | N.A. | 6.34 | 5.82 | 5.47 | 7.14 | 6.80 | 5.63 | 5.20 |
| Chloride (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Cyanide (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Fluoride (ug/kg) | N.T. | 19,000 | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Nitrate (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Sulfate (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |

N.A. - NOT AVAILABLE

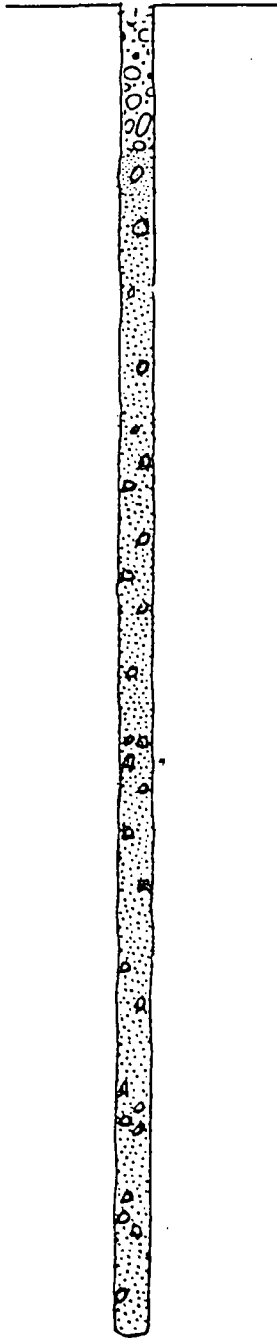
N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - INITIAL THRESHOLD LIMIT CONCENTRATION

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|--------------|-------------------------------------------------------------------|
|  <p>COMPLETION & BACKFILL -Asphalt patch at surface -Bentonite, 0-5 ft -Parent material, 5-81 ft</p> | - 0 - | | | -Asphalt |
| | - 4 - | | 50 | Ring sample at 5 |
| | - 8 - | | | -Sand, brown, medium to coarse, no odor, gravel and large cobbles |
| | - 12 - | | 50 | Ring sample at 10 |
| | - 16 - | | | -At 10, becoming coarser, more multicolored and larger pea gravel |
| | - 20 - | | 50 | Ring sample at 20 |
| | - 24 - | | | |
| | - 28 - | | | |
| | - 32 - | | 56 | Ring sample at 30 |
| | - 36 - | | | -Sand, multicolored, medium to coarse, occasional gravel |
| | - 40 - | | 50 | Ring sample at 40 |
| | - 44 - | | | -At 40.5, very dramatic lithologic change |
| | - 48 - | | | -Sand, brown, fine to medium, moist |
| | - 52 - | | | -Sand, brown with some multicolored, coarse, some cobbles |
| | - 56 - | | | |
| | - 60 - | | | -Cobbles become abundant at 57 |
| | - 64 - | | | Ring sample at 65 |
| | - 68 - | | | |
| | - 72 - | | | |
| | - 76 - | | | |
| | - 80 - | | | Ring sample at 80 |
| | | | | -End of hole at 81 |

TANK NO. B-6-QBORING NO. B6-82-T1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|---------------------------------------------------------------------------------------------------------------------|--------|-----|--------------|-----------------------------------------------------------------------|
|  <p>COMPLETION & BACKFILL</p> | - 0 - | | | - Asphalt |
| | - 4 - | | 37 | Ring sample at 5 |
| | - 8 - | | | - Sand, multicolored, coarse, some gravel |
| | - 12 - | | 36 | Ring sample at 10 |
| | - 16 - | | | |
| | - 20 - | | 50 | Ring sample at 20 |
| | - 24 - | | | - Sand, multicolored, coarse, some gravel |
| | - 28 - | | | |
| | - 32 - | | 50 | Ring sample at 30 |
| | - 36 - | | | |
| | - 40 - | | | Ring sample at 40 |
| | - 44 - | | | - Sand, multicolored, coarse, some gravel and cobbles |
| | - 48 - | | | |
| | - 52 - | | | |
| | - 56 - | | | |
| | - 60 - | | | |
| | - 64 - | | | - Sand continues, multicolored, coarse, some gravel and cobbles |
| | - 68 - | | | |
| | - 72 - | | | |
| | - 76 - | | | Ring sample at 80 |
| | - 80 - | | | - At 80, Sand, brown, fine to medium - End of hole at 81 |

COMPLETION & BACKFILL
 -Asphalt patch at surface
 -Bentonite, 0-5 ft
 -Parent material, 5-81 ft

TANK NO. B-6-Q

BORING NO. B6-82-T2

| PARAMETER | DETECTION LIMIT | TYLC | B-6-82 T1 5 ft | B-6-82 T1 10 ft | B-6-82 T1 20 ft | B-6-82 T1 30 ft | B-6-82 T1 40 ft | B-6-82 T1 55 ft |
|---------------------------------------|--------------------|--------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Halogenated Volatile Organics (ug/kg) | | | | | | | | |
| IEPA Method 8010 | | | | | | | | |
| Bromodichloromethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromoform | 0.70 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromomethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Carbon tetrachloride | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chlorobenzene | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chloroethane | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chloroform | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1-Chloroethyl vinyl ether | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chloroacethane | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromochloromethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichlorobenzene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,3-Dichlorobenzene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,4-Dichlorobenzene | 0.60 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,2-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| trans-1,2-Dichloroethene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,2-Dichloropropane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| trans-1,3-Dichloropropene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1,2-Tetrachloroethane | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Tetrachloroethene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,2-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Trichloroethane | 0.30 | *2.0+0 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Vinyl Chloride | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Aromatic Volatile Organics (ug/kg) | | | | | | | | |
| IEPA Method 8020 | | | | | | | | |
| Benzene | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chlorobenzene | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Ethyl benzene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Toluene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Petroleum Hydrocarbons (ug/kg) | | | | | | | | |
| IEPA Method 413.1 | | | | | | | | |
| | **9.6 | 2500 | 5.9 | N.D. | N.D. | 26.6 | 3.7 | 11.9 |

* Milligrams per kilogram (ug/kg)

** Average Values Obtained From Background Concentrations
For Lockheed Plant 8-1

N.A. -Not Available; N.D. -Not Detected; N.T. -Not Tested

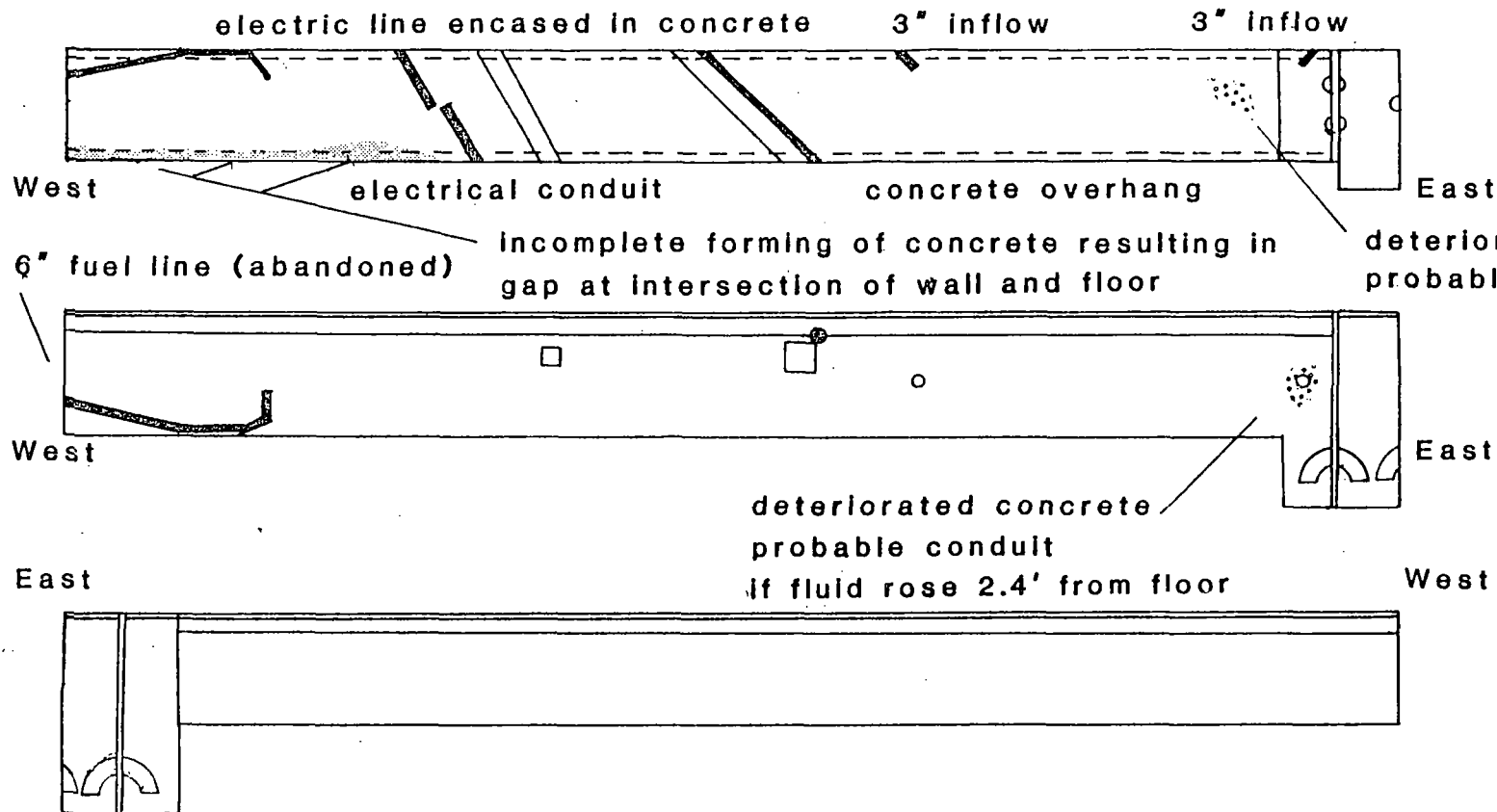
TABLE 8-3-82-T2: RESULTS OF CHEMICAL ANALYSES - LOCKHEED-CALIFORNIA COMPANY

| PARAMETER | DETECTION LIMIT | TTC | 8-3-82 T2 5 ft | 8-3-82 T2 10 ft | 8-3-82 T2 20 ft | 8-3-82 T2 30 ft | 8-3-82 T2 45 ft | 8-3-82 DUPLICATE 45 ft | 8-3-82 T2 60 ft | 8-3-82 T2 80 ft |
|---------------------------------------------|--------------------|--------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|
| <hr/> | | | | | | | | | | |
| Halogenated Volatile Organics (ug/kg) | | | | | | | | | | |
| EPA Method 8010 | | | | | | | | | | |
| Bromochloromethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromotrichloromethane | 0.70 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromodichloromethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Carbon tetrachloride | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chloroform | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Dichloromethane | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Trichloroethylene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichloro-2,2-bis(4-chlorophenyl) ethane | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichloroethane | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Bromochloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichlorobenzene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,2-Dichlorobenzene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,3-Dichlorobenzene | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,2-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| trans-1,2-Dichloroethene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichloroethene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| trans-1,2-Dichloroethene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1-Dichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| trans-1,2-Dichloroethene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,1-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| 1,1,2-Trichloroethane | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Trichloroethene | 0.30 | ±2,040 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Vinyl Chloride | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Aromatic Volatile Organics (ug/kg) | | | | | | | | | | |
| EPA Method 8020 | | | | | | | | | | |
| Benzene | 0.20 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chlorobenzene | 0.50 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Ethylbenzene | 0.10 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Toluene | 0.40 | N.A. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| <hr/> | | | | | | | | | | |
| Petroleum Hydrocarbons (mg/kg) | | | | | | | | | | |
| EPA Method 413.1 | ±7.6 | 2500 | 5.5 | 17.9 | 2.3 | N.D. | 3.0 | N.T. | 2.3 | N.D. |

* Milligrams per kilogram (mg/kg)

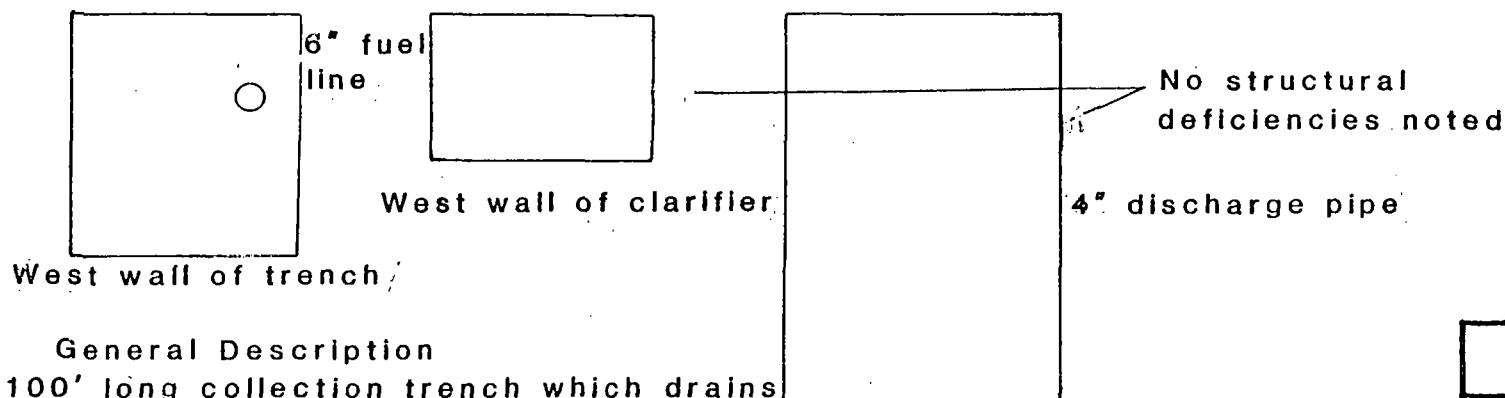
* Average Values Obtained From Background Concentrations
For Lockheed Plant 8-1

N.A. -Not Available; N.D. -Not Detected; N.T. -Not Tested



Scale in feet
0 4 8 16

Scale depth in feet
0 2 4 8



Scale in feet
0 1 2 4

General Description
100' long collection trench which drains to a 2-stage clarifier at the east end
Note: 2" of oily sediment removed prior to inspection

B-6-Q

INSPECTION DIAGRAM

GREGG & ASSOCIATES, INC.

0040

TANK NUMBER B-6-R

FIELD PROGRAM

Two borings, B-6-R-B1 and B-6-R-B2, and three vapor monitoring wells, B-6-R-MV1, B-6-R-MV2, and B-6-R-MV3, were installed to monitor subsurface conditions at waste oil Tank B-6-R.

BORING B-6-R-B1

Monitoring Installations - Boring B-6-R-B1 was drilled slightly north and west of the approved location due to rig access problems. Both the actual and approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples were taken at depths of 8, 20, 25, 30 and 40 feet, as approved in the Work Plan.

Field Observations - The medium to coarse grain size and brown color of the sand remained consistent throughout the entire boring. The frequency of cobbles increased at 10 feet and continued to 11 feet, and increased again from 13 to 14 feet.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There were no indications of contamination.

BORING B-6-R-B2

Monitoring Installations - Boring B-6-R-B2 was drilled as indicated on the approved Work Plan. The location of the boring is indicated on the site map.

Sampling Intervals - Soil samples were taken at depths of 8, 20, 25, 30 and 40 feet, as approved in the Work Plan.

Field Observations - The medium to coarse grain size of the sand became increasingly coarse with depth. The frequency of cobbles increased at both 7 and 14 feet, with each zone approximately 2 feet thick. The soil was brown in color throughout the boring.

There were no indications of contamination.

VAPOR MONITORING WELL B-6-R-MV1

Monitoring Installations - Boring B-6-R-MV1 was installed slightly north of the approved location due to reassessment of pipeline locations. Both the actual and approved locations of the boring are indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 15 feet, as approved in the Work Plan.

TANK B-6-R (continued)

Field Observations - The medium to coarse grain size of the sand became increasingly coarse with depth. The frequency of cobbles increased at both 7 and 14 feet, with each zone being about 1 foot thick. The soil was brown in color throughout the entire vapor monitoring well.

There were no indications of contamination.

VAPOR MONITORING WELL B-6-R-MV2

Monitoring Installations - Boring B-6-R-MV2 was installed initially for hydraulic conductivity testing. A falling head permeability test will be run to replicate a tank leak in the subsurface. This site was chosen because the lithology is typical of the majority of Plant B-6 tank sites. After the tests are complete, the test well will be converted to a vapor monitoring well for Tank B-6-R.

Sampling Intervals - Soil samples were taken at a depth of 15 feet.

Field Observations - The medium to coarse grain size and brown color of the sand remained consistent throughout the entire well. The frequency of cobbles increased at 3, 7, and 12 feet, and continued to 4, 8, and 13 feet, respectively.

There were no indications of contamination.

VAPOR MONITORING WELL B-6-R-MV3

Monitoring Installations - Vapor Monitoring Well B-6-R-MV3 was installed as indicated in the approved Work Plan. The location of the well is indicated on the site map.

Sampling Intervals - Soil samples were to have been collected at a depth of 15 feet, according to the Work Plan. However, reassessment of the tank depth necessitated shifting the sample interval to 13 feet.

Field Observations - The medium to coarse grain size and brown color of the sand remained consistent throughout the entire well. The frequency of cobbles increased at 7 and continued to 8 feet.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The samples were analyzed as approved in the Work Plan.

TANK B-6-R (continued)

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-R.

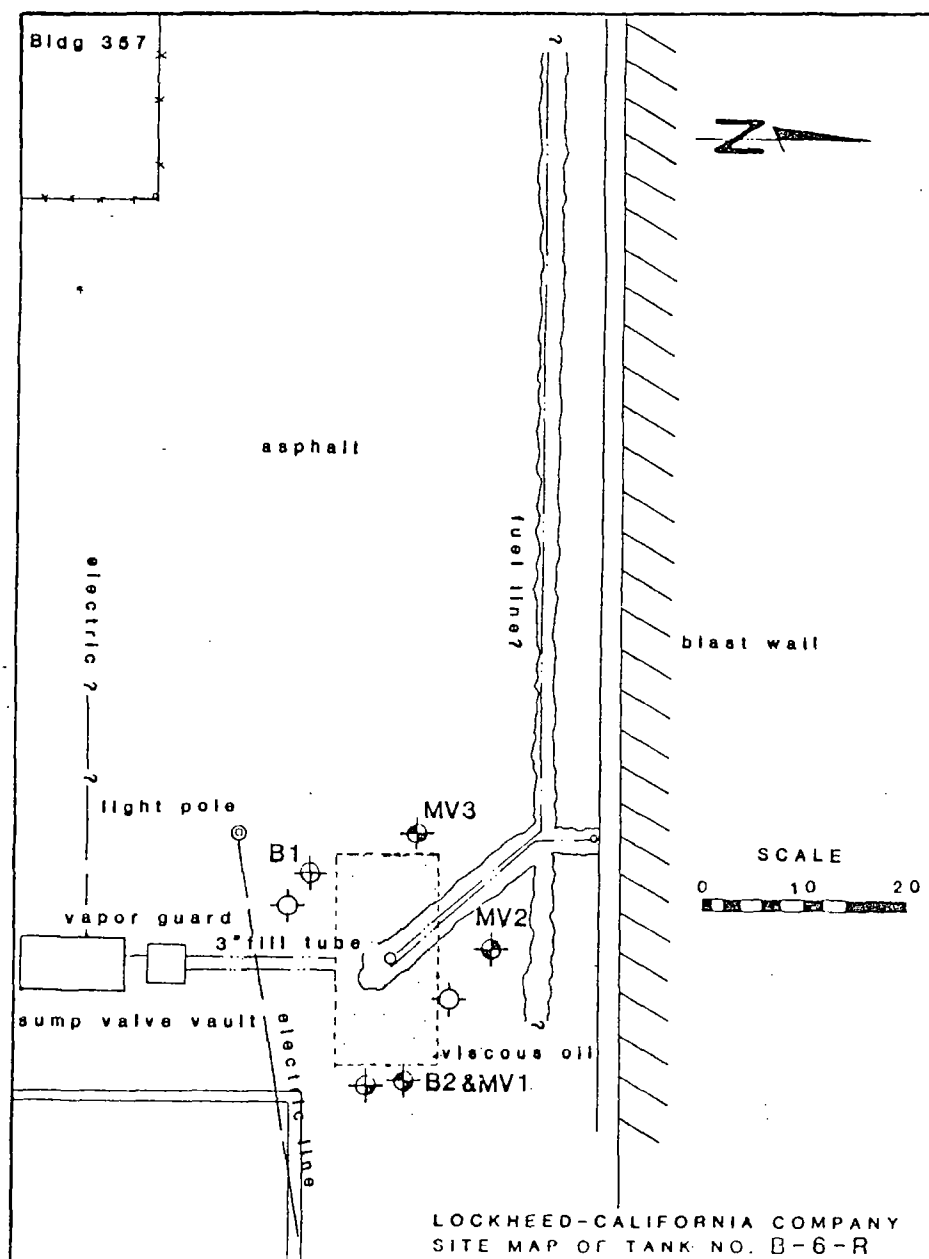
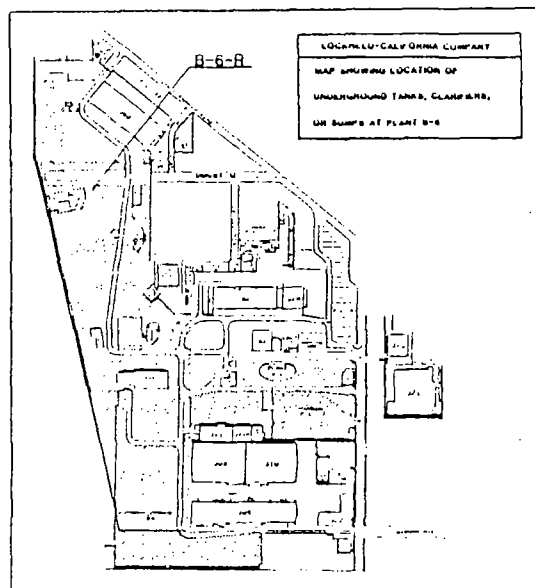
Low levels of petroleum hydrocarbons (22.2 to 24.3 mg/kg) were detected in the samples.

CONCLUSIONS

Based upon field and laboratory analysis and field observations, it is concluded that the tank is not leaking. The low concentrations (22.2 to 24.3 mg/kg) of petroleum hydrocarbons found are more likely due to surface spills and other surface sources.

RECOMMENDATION


Proceed with quarterly monitoring of the wells.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------|
| Tank No. | B-0-R |
| Plant No./Nearest Bldg. | B6/Bldg. 357 1760 ft E |
| Tank: | Location |
| | 2001 N. Hollywood Way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | UNK |
| | Use/Process |
| | UNK |
| | Contents (past, CAS No., date) |
| | UNK |
| | (present, CAS No.) |
| | Viscous oil |
| | Construction Materials |
| | Steel |
| | Geometry |
| | Cylindrical |
| | Depth to Top |
| | UNK |
| | Depth to Invert |
| | 14.9 ft |
| | Diameter |
| | UNK |
| | Length (L) |
| | UNK |
| | Containment |
| | None |
| | Corrosive Protection (Z) |
| | UNK |
| | Status |
| | UNK |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | UNK |
| Site: | Paving Material/Thickness |
| | Asphalt |
| | Appearance |
| | Disturbed Asphalt Around Site |
| | Surface Contamination |
| | UNK |
| Drilling Program | Rig Type/Requirements (3) |
| | M.S. Auger |
| | Burings (No.) |
| | 2 |
| | Sample Depths |
| | B1/8, 20, 25, 30, 40 ft |
| | B2/8, 20, 25, 30, 40 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 3 |
| | Sample Depths |
| | MV1/REF. TO B2 |
| | MV2/15 ft |
| | MV3/13 ft |
| | Completion Interval |
| | MV1/3-13.1 ft |
| | MV2/3-13 ft |
| | MV3/3-13.7 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 1 |
| | Parameters |
| | Hydrocarbons |
| | No. of Tank Soil Samples |
| | 3 (Comp.) |
| | Parameters |
| | Hydrocarbons |

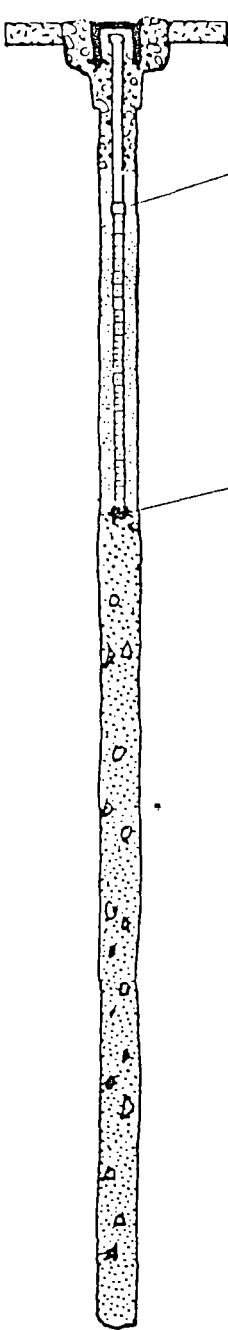
0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|--------------------------------------------------------------|--------------|--------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 2 - | Sand, fine to coarse grain, brown, moist, occasional pebbles | | Sand, fine to coarse grain, brown, moist, occasional pebbles |
| | - 4 - | | | |
| | - 6 - | | | |
| | - 8 - | | | |
| | - 10 - | | 35 | Cobbles |
| | - 12 - | | | Cobbles |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | 50 | increasing coarseness w/depth |
| | - 22 - | | | |
| | - 24 - | | | |
| | - 26 - | | 67 | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | 62 | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 74 | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, none
- Bentonite, 0.5-3 ft
- Clean sand, none
- Native material, 3-40 ft

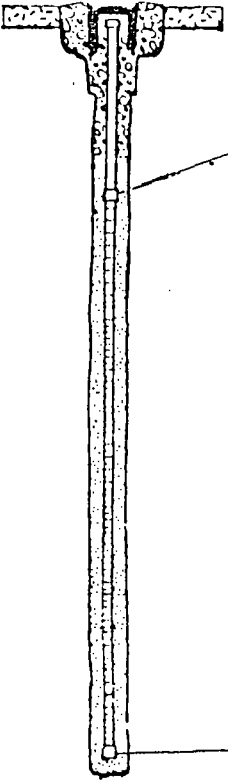
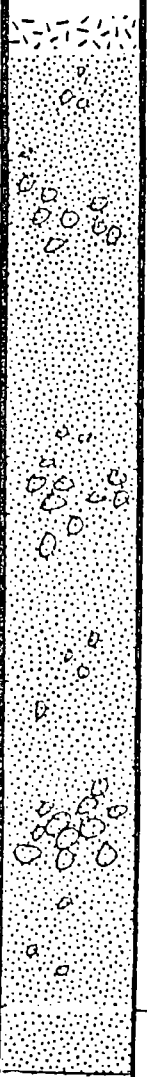
TANK NO. B-6-RBORING NO. B-6-R-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|--------------------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, fine to coarse grain, brown, moist, occasional pebbles |
| | - 4 - | | | |
| | - 6 - | | | |
| | - 8 - | | 33 | Cobbles |
| | - 10 - | | | |
| | - 12 - | | | |
| | - 14 - | | | Cobbles |
| | - 16 - | | | |
| | - 18 - | | | increasing coarseness w/depth |
| | - 20 - | | 87 | |
| | - 22 - | | | |
| | - 24 - | | | |
| | - 26 - | | 66 | |
| | - 28 - | | | |
| | - 30 - | | 86 | |
| | - 32 - | | | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-3 ft
- Screened 2-in I.D. PVC pipe, 3-13.1 ft
- Concrete, 0-2 ft
- Bentonite, 2-3 ft
- Clean sand, 3-13 ft
- Native material, 13-40 ft

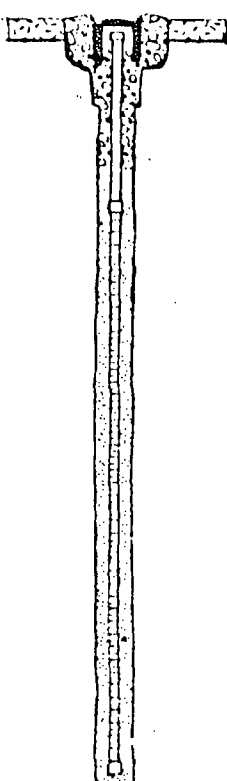
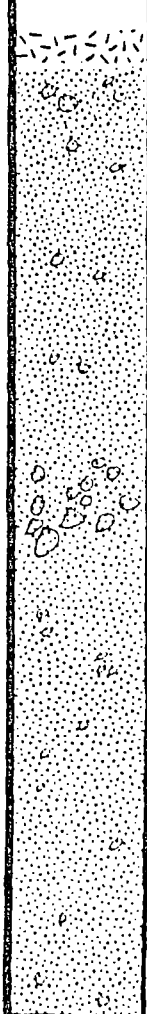
TANK NO. B-6-RBORING NO. B-6-R-B2

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------------|---------------------------------------------------------|
|  | - 0 - |  | 69 | - Asphalt |
| | - 1 - | | | - Sand, fine to coarse grain, brown, occasional pebbles |
| | - 2 - | | | |
| | - 3 - | | | - Cobbles |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | - Cobbles |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | - Cobbles |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-3 ft
- Screened 2-in I.D. PVC pipe, 3-13 ft
- Concrete, 0-2 ft
- Bentonite, 2-3 ft
- Clean sand, 3-15 ft

TANK NO. B-6-RMONITORING WELL NO. B-6-R-MV2

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------------|------------------------|
|  | - 0 - |  | 78 | Asphalt |
| | - 1 - | | | sand, fine to coarse |
| | - 2 - | | | grain, brown, moist, |
| | - 3 - | | | occasional pebbles and |
| | - 4 - | | | cobbles at 1 ft |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | Cobbles |
| | - 8 - | | | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D.
- PVC pipe, 0.3-3 ft
- Screened 2-in I.D.
- PVC pipe, 3-13.7 ft
- Concrete, 0-2 ft
- Bentonite, 2-3 ft
- Clean sand, 3-15 ft

TANK NO. B-6-RMONITORING WELL NO. B-6-R-MV3

TABLE B-6-R: CHEMICAL ANALYSES

0840

| PARAMETER | | | SAMPLE I.D. | | |
|-------------------------------|--------------------------|---------|-------------|-----------|-----------|
| | BACK GROUND SAMPLE | TTLIC | | | |
| | | | B-6-R | B-6-R | B-6-R |
| | | | B1 | B2 | MV2 & MV3 |
| | | | COMPOSITE | COMPOSITE | COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | N.T. | N.T. | N.T. |
| Benzene | <0.2 | | | | |
| Carbon Disulfide | | | | | |
| 1,1 Dichloroethene | <0.1 | | | | |
| Methylene Chloride | <0.5 | | | | |
| Perchloroethylene | <0.4 | | | | |
| 1,1,1 Trichloroethane | <0.2 | | | | |
| Trichloroethylene | <0.3 | * 2,040 | | | |
| Toluene | <0.4 | | | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | 24.3 | N.D. | 22.2 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | 23.3 | N.D. | 21.5 |
| CAM Metals (ug/kg) | | | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | | | |
| Arsenic | 12.7 | 500 | | | |
| Barium | 43.4 | 10,000 | | | |
| Beryllium | <1.0 | 75 | | | |
| Cadmium | <0.5 | 100 | | | |
| Chromium (Total) | 6.3 | 2,500 | | | |
| Cobalt | 4.3 | 8,000 | | | |
| Copper | 8.6 | 250 | | | |
| Lead | <2.5 | 1,000 | | | |
| Mercury | <0.1 | 20 | | | |
| Molybdenum | 6.9 | 3,500 | | | |
| Nickel | 4.1 | 2,000 | | | |
| Selenium | <2.5 | 100 | | | |
| Silver | <2.5 | 500 | | | |
| Thallium | <2.5 | 700 | | | |
| Vanadium | 12.7 | 2,400 | | | |
| Zinc | 21.4 | 2,500 | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. |
| Others | | | N.T. | N.T. | N.T. |
| pH | 8.19 | N.A. | | | |
| Chloride (ug/kg) | N.T. | N.A. | | | |
| Cyanide (ug/kg) | N.T. | N.A. | | | |
| Fluoride (ug/kg) | N.T. | 18,000 | | | |
| Nitrate (ug/kg) | N.T. | N.A. | | | |
| Sulfate (ug/kg) | N.T. | N.A. | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTLIC - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

TANK NUMBER B-6-S

FIELD PROGRAM

One boring, B-6-S-B1, one vapor monitoring well, B-6-S-MV1, and one suction lysimeter, B-6-S-SL1, were drilled/installed to monitor subsurface conditions at waste paint sludge Tank B-6-S.

BORING B-6-S-B1/VAPOR MONITORING WELL B-6-S-MV1

Monitoring Installations - Boring B-6-S-B1 was drilled as indicated on the site map. This tank was not included in the Work Plan, but was sampled in the presence of Mr. Al Novak of the RWQCB, who approved the drilling locations in the field. Upon completion the boring was backfilled to 10 feet and a vapor monitoring well installed.

Sampling Intervals - Soil samples were taken at depths of 10, 16, 30 and 40 feet, as approved in the field by Mr. Novak.

Field Observations - The medium-to-coarse grain size of the sand remained consistent throughout the first 5 feet of the boring. At 5 feet the sand became coarser, and the gravel and cobble fraction decreased. The sand became lighter in color at the same depth. The frequency of cobbles decreased at 5 feet.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The only possible indication of contamination was the slightly reddish color of the sand. There were no detectable vapors emanating from the samples.

SUCTION LYSIMETER B-6-S-SL1

Monitoring Installations - Suction Lysimeter B-6-S-SL1 was installed as indicated on the site map.

Sampling Intervals - Soil samples were taken at depths of 4 and 9 feet. Soil samples were to have been extracted using a 3-inch modified California ring sampler, however, extremely limited access necessitated the use of a smaller rig with a 4-inch solid stem auger. It was, therefore, not possible to use a downhole sampler, which requires an 8-inch hollow stem auger. The soil samples were taken directly from the auger flights at the surface.

The auger cut samples are subject to volatilization. Further, they may represent soil from just below the surface to 4 and 9 feet due to soil caving onto the auger flights. The hole was drilled to 27 feet then backfilled to 9 feet where the lysimeter was installed.

TANK B-6-S (continued)

Field Observations -The medium-to-coarse grain size and brown color of the sand remained consistent throughout the entire 27 feet of the excavation made for the lysimeter. The frequency of cobbles decreased at 14 feet.

There were no indications of contamination.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - The samples taken from Boring B-6-S-B1 and Suction Lysimeter B-6-S-SL1 were analyzed for volatile organics and petroleum hydrocarbons.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-S. Methyl ethyl ketone (MEK), perchloroethylene and toluene were detected in the samples. The concentrations range from a low of 5.6 ug/kg of MEK to a high of 23 ug/kg of perchloroethylene.

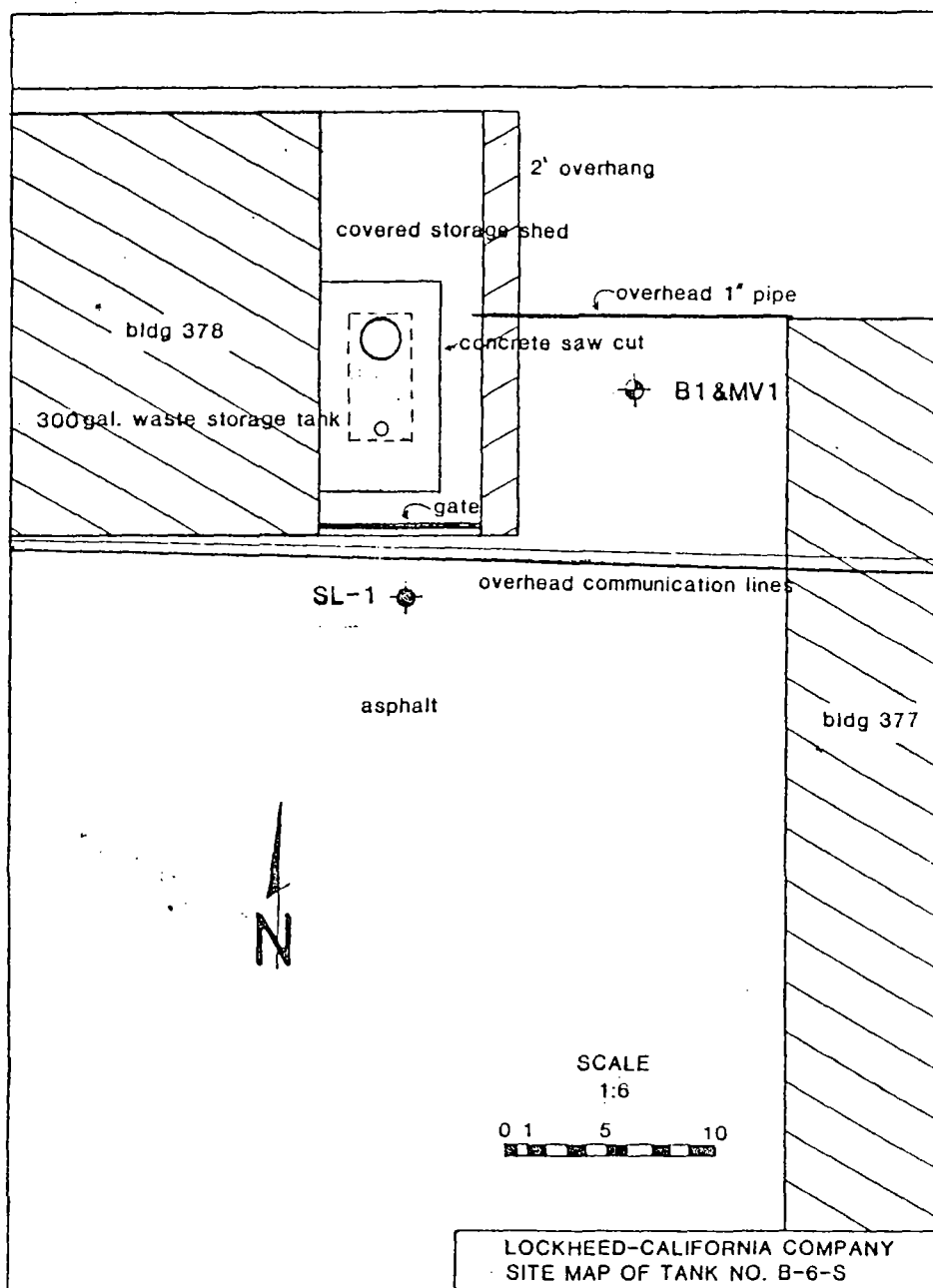
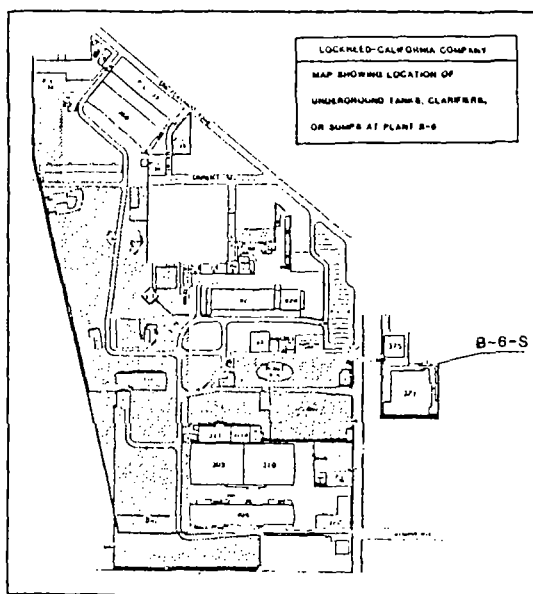
Moderately high levels of petroleum hydrocarbons (149 mg/kg) were also detected. This level is higher than the background level.

CONCLUSIONS

The laboratory results show that traces of volatile organics and moderately high levels of petroleum hydrocarbons (149 mg/kg) were detected, suggesting that the tank may be the source of contamination.

RECOMMENDATION

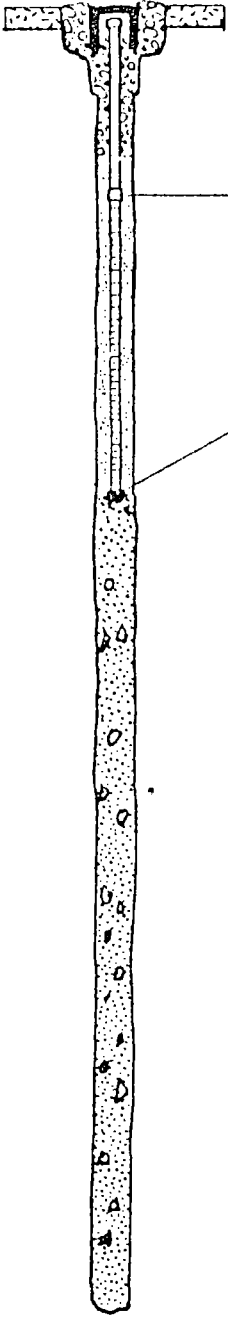
Additional subsurface sampling and analysis should be conducted to determine whether the origin of the contamination is from the leakage of the tank and to quantify the extent of contamination.



PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------|
| Tank No. | B-0-5 |
| Plant No./Nearest bldg. | Bo/Bldg. 37B (E Side) |
| Tank: | Location |
| | 2801 N. Hollywood Way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | 500 |
| | Use/Process |
| | Paint shop floor drain |
| | Contents (past, CWS No., date) |
| | water soluble paint |
| | (present, CWS No.) |
| | M.E.N. |
| | Construction Materials |
| | Steel |
| | Geometry |
| | Cylindrical |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | UNK |
| | Diameter |
| | 3 ft |
| | Length (L) |
| | 0 ft |
| | Containment |
| | None |
| | Corrosive Protection (C) |
| | UNK |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | Steel |
| Site: | Paving Material/Thickness |
| | Asphalt, 5 in. |
| | Appearance |
| | Fair |
| | Surface Contamination |
| | None |
| Drilling Program | Log Type/Requirements (3) |
| | B1 MS Auger-MV1 SS Auger |
| | Borings (No.) |
| | 1 |
| | Sample Depths |
| | B1/10, 10, 30, 40 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 2 |
| | Sample Depths |
| | MV1/REF. 10 B1 |
| | SL1/Grnd Jar |
| | 0-5, 7-10 ft |
| | Completion Interval |
| | MV1/0-10 ft |
| | SL1/9 ft |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | |
| | No. of Tank Soil Samples |
| | 2 (Comp.) |
| | Parameters |
| | Vol. Grg. |

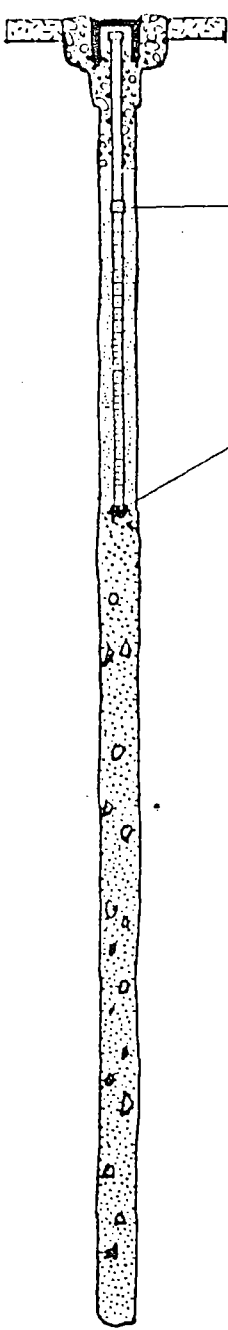
0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|--------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | broken chunks of concrete 1-12 in. |
| | - 4 - | | | Sand, medium to coarse grain, red brown, |
| | - 6 - | | | cobbles to 12 in, rounded cobbles in sand matrix |
| | - 8 - | | | 5 ft color change, lighter, coarse |
| | - 10 - | | | |
| | - 12 - | | 50 | |
| | - 14 - | | | |
| | - 16 - | | | occasional gravel to 3 in |
| | - 18 - | | 50 | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | | |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | | |
| | - 32 - | | 50 | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-6 ft
- Screened 2-in I.D. PVC pipe, 6-10 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-10 ft
- Native materials, 10-40 ft

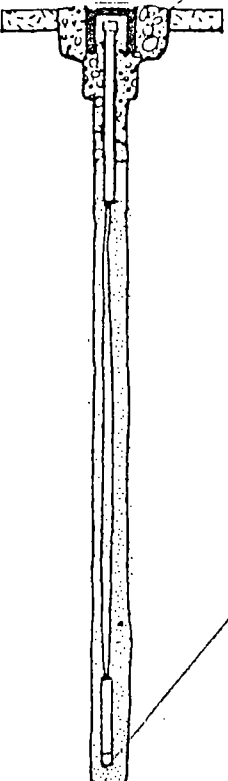
TANK NO. B-6-SBORING NO. B-6-S-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|--------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | broken chunks of concrete 1-12 in. |
| | - 4 - | | | Sand, medium to coarse grain, red brown, |
| | - 6 - | | | cobbles to 12 in, rounded cobbles in sand matrix |
| | - 8 - | | | 5 ft color change, lighter, coarse |
| | - 10 - | | 50 | |
| | - 12 - | | | |
| | - 14 - | | | |
| | - 16 - | | 50 | occasional gravel to 3 in |
| | - 18 - | | | |
| | - 20 - | | | |
| | - 22 - | | | |
| | - 24 - | | | |
| | - 26 - | | | |
| | - 28 - | | | |
| | - 30 - | | 50 | |
| | - 32 - | | | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | |
| | - 40 - | | 50 | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-6 ft
- Screened 2-in I.D. PVC pipe, 6-10 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-10 ft
- Native materials, 10-40 ft

TANK NO. B-6-SBORING NO. B-6-S-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------|--------------|----------------------------------------------------------------------|
|  | - 0 - | Asphalt | | Asphalt |
| | - 1 - | Sand, medium to coarse grain, variegated, abundant pebbles & cobbles | | Sand, medium to coarse grain, variegated, abundant pebbles & cobbles |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | Jar | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | Jar | |
| | - 9 - | | | |
| | - 10 - | | | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Suction lysimeter at 9 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-10 ft

TANK NO. B-6-SSUCTION LYSIMETER NO. B-6-S-SL1

TABLE B-6-S: CHEMICAL ANALYSES

0840

| PARAMETER | | | SAMPLE | | | | |
|-------------------------------|--------------------------|----------|--------------------------------------|--------------------------------------|-------------------------|-------------------------|---------------------------|
| | | | I.D. | | | | |
| | | | | | | | |
| | BACK GROUND SAMPLE | TTL C | B-6-S B1 (10-16 ft.) COMPOSITE | B-6-S B1 (30-40 ft.) COMPOSITE | B-6-S SL1 0-5 ft. | B-6-S SL1 0-9 ft. | B-6-S SL1 COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | N.D. | | | | |
| Benzene | <0.2 | | N.D. | | N.D. | N.D. | N.D. |
| Carbon Disulfide | | | N.D. | | N.D. | N.D. | N.D. |
| 1,1 Dichloroethene | <0.1 | | N.D. | | N.D. | N.D. | N.D. |
| Methylene Chloride | <0.5 | | N.D. | | N.D. | N.D. | N.D. |
| Perchloroethylene | <0.4 | | N.D. | | 22.9 | 19.6 | 21.3 |
| 1,1,1 Trichloroethane | <0.2 | | N.D. | | N.D. | N.D. | N.D. |
| Trichloroethylene | <0.3 | * 2,040 | N.D. | | N.D. | N.D. | N.D. |
| Chloroform | <0.1 | | N.D. | | 16.4 | N.D. | 8.2 |
| Toluene | <0.4 | | N.D. | | N.D. | N.D. | N.D. |
| Methyl Ethyl Ketone | | | 5.6 | | | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | 149 |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. |
| Antimony | <2.5 | 500 | | | | | |
| Arsenic | 12.7 | 500 | | | | | |
| Barium | 43.4 | 10,000 | | | | | |
| Beryllium | <1.0 | 75 | | | | | |
| Cadmium | <0.5 | 100 | | | | | |
| Chromium (Total) | 6.3 | 2,500 | | | | | |
| Cobalt | 4.3 | 8,000 | | | | | |
| Copper | 8.6 | 250 | | | | | |
| Lead | <2.5 | 1,000 | | | | | |
| Mercury | <0.1 | 20 | | | | | |
| Molybdenum | 6.9 | 3,500 | | | | | |
| Nickel | 4.1 | 2,000 | | | | | |
| Selenium | <2.5 | 100 | | | | | |
| Silver | <2.5 | 500 | | | | | |
| Thallium | <2.5 | 700 | | | | | |
| Vanadium | 12.7 | 2,400 | | | | | |
| Zinc | 21.4 | 2,500 | | | | | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | | | |
| Others | | | N.T. | N.T. | N.T. | N.T. | N.T. |
| pH | 8.19 | N.A. | | | | | |
| Chloride (ug/kg) | N.T. | N.A. | | | | | |
| Cyanide (ug/kg) | N.T. | N.A. | | | | | |
| Fluoride (ug/kg) | N.T. | 18,000 | | | | | |
| Nitrate (ug/kg) | N.T. | N.A. | | | | | |
| Sulfate (ug/kg) | N.T. | N.A. | | | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

FIELD PROGRAM

One boring, B-6-T-B1, and one vapor monitoring well, B-6-T-MV1, were installed to monitor subsurface conditions at flight line blowdown Sump B-6-T.

BORING B-6-T-B1

Monitoring Installations - Boring B-6-T-B1 was drilled as indicated on the site map. The sump was not included in the original inventory. It was, however, sampled in a manner consistent with similar Plant B-6 sumps. Mr. Al Novak of the RWQCB was notified of this program addition.

Sampling Intervals - Soil samples were taken from Boring B-6-T-B1 at depths of 5, 11, 16, 28 and 35 feet, as approved in the Work Plan. A 40-foot sample was attempted but lost during retrieval due to a broken sand trap.

Field Observations - The medium to coarse grain size and variegated light brown color of the sand remained consistent throughout the first 19 feet of the boring. At 19 feet the sand became finer, and the gravel and cobble fraction decreased. The frequency of cobbles decreased at 19 feet, increased again at 25 feet, and finally faded. From 19 to 35 feet the color changed slightly from the light brown to brown, which corresponds with the general grain size decrease at the same depth.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. There was a very slight odor at 5 feet but it faded quickly and disappeared completely by 8 feet.

VAPOR MONITORING WELL B-6-T-MV1

Monitoring Installations - Vapor Monitoring Well B-6-T-MV1 was installed as indicated on the site map.

Sampling Intervals - Soil samples were taken at a depth of 10 feet.

Field Observations - The medium to coarse grain size and light brown color of the sand remained consistent throughout the entire well. The frequency of cobbles increased at 9 feet and continued to 10 feet.

There were no indications of contamination.

TANK B-6-T (continued)

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - A composite of the samples was analyzed for volatile organics.

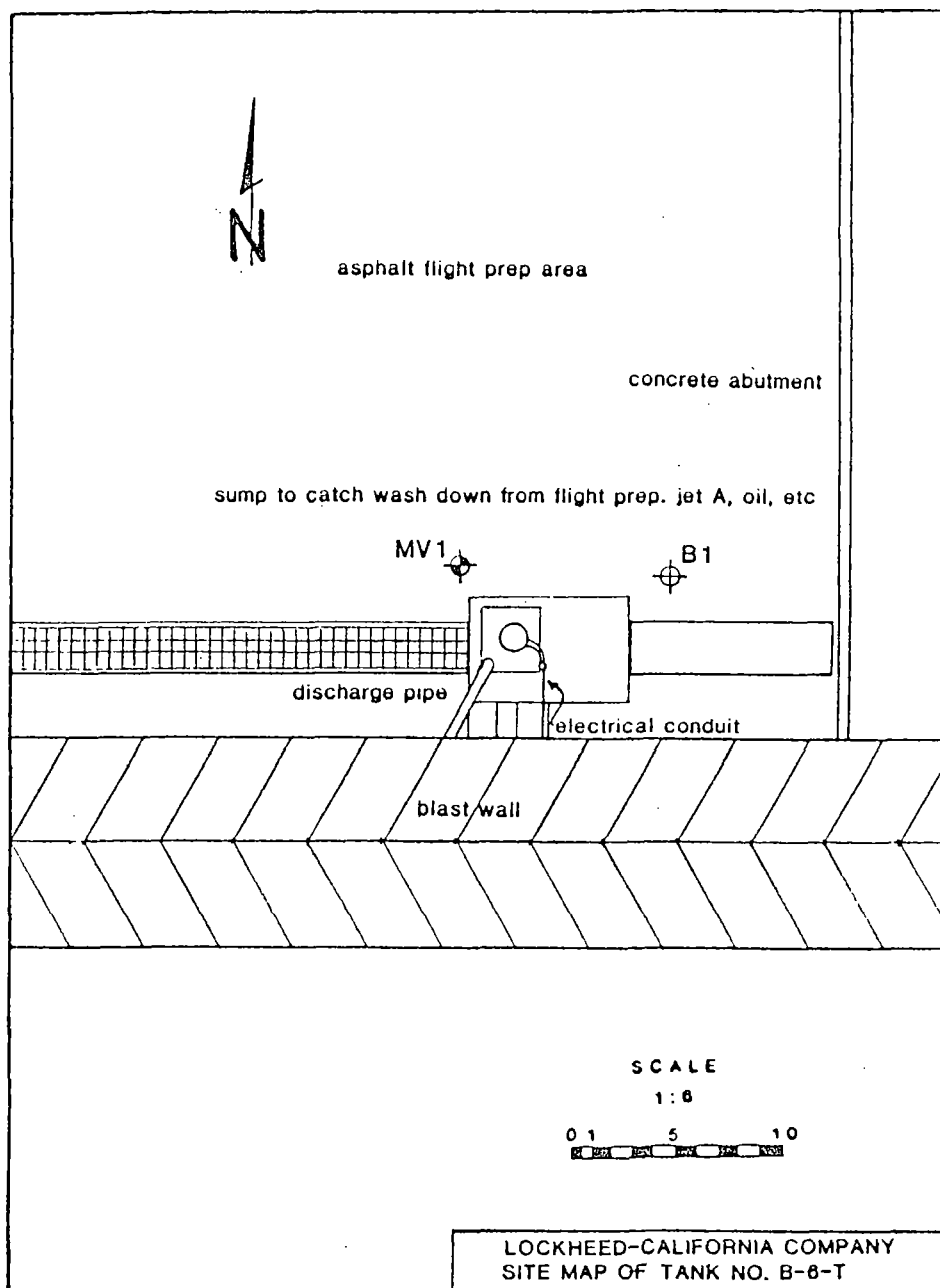
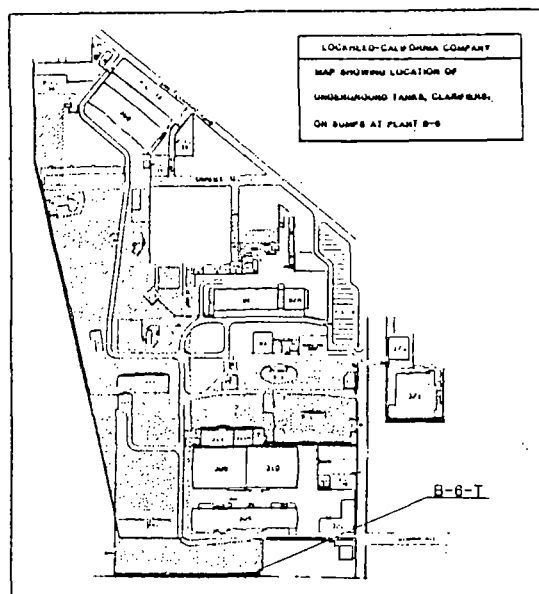
Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-T. All volatile organics analyzed were below detection limits.

CONCLUSIONS

Both field and laboratory analysis results show that the suspected contaminants were below detection limits. It is concluded that the tank is not leaking.

RECOMMENDATION

Proceed with quarterly monitoring of the wells.



PERTINENT CONSTRUCTION AND PROGRAM DATA

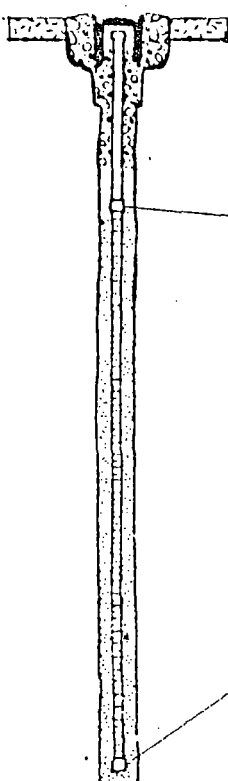
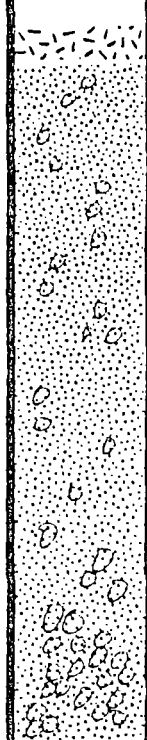

| | |
|-------------------------|------------------------------------------------|
| Tank No. | B-0-1 |
| Plant No./Nearest Bldg. | Bo/Bldg 314 nr. Winona Ent. |
| Tank: | Location |
| | 2801 N. Hollywood way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | 400 |
| | Use/Process |
| | Sump to catch washdown from flight preparation |
| | Contents (past, CAS No., date) |
| | Jet-A Oil washdown |
| | (present, CAS No.) |
| | Jet-A Oil washdown |
| | Construction Materials |
| | Concrete |
| | Geometry |
| | Square |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | UNK |
| | Diameter |
| | 3 ft |
| | Length (ft) |
| | 3 ft |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | None |
| | Status |
| | In service |
| Tank Piping: Number | 1 |
| | Type |
| | Discharge |
| | Construction Mat. |
| | Steel |
| Site: | Paving Material/Thickness |
| | Asphalt/5 in |
| | Appearance |
| | Fair |
| | Surface Contamination |
| | None |
| Drilling Program | Rig Type/Requirements (3) |
| | H.S. Auger |
| | Borings (No.) |
| | 1 |
| | Sample Depths |
| | B1/S, 11, 16, 26, 25 ft |
| | Vapor Wells/Lysimeters (No.) |
| | 1 |
| | Sample Depths |
| | NV1/S-10 ft |
| | Completion Interval |
| | NV1/S-10 ft |
| Laboratory Program (4) | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | No. of Tank Soil Samples |
| | 3 (Comp.) |
| | Parameters |
| | Hydrocarbons, Vol. Org. |
| | CAN |

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|----------------------|--------|-----|--------------|-----------------------------------------------------------------------------------|
| | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, medium to coarse grain, variegated light brown, occasional cobbles & gravel |
| | - 4 - | | | w/some odor (not detectable w/HNU) |
| | - 6 - | | 24 | |
| | - 8 - | | | Cobbles |
| | - 10 - | | | |
| | - 12 - | | 30 | |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | 45 | |
| | - 20 - | | | Cobbles diminished |
| | - 22 - | | | |
| | - 24 - | | | |
| | - 26 - | | | Sand, medium to coarse grain, brown, some gravel, moist, soft |
| | - 28 - | | | abundant cobbles at 25 ft |
| | - 30 - | | 23 | |
| | - 32 - | | | Cobbles diminished |
| | - 34 - | | | |
| | - 36 - | | 50 | |
| | - 38 - | | | |
| | - 40 - | | | |

COMPLETION & BACKFILL

- Asphalt, 0-0.5 ft
- Concrete, 1-5 ft
- Bentonite, none
- Clean sand, 5-35 ft

TANK NO. B-6-TBORING NO. B-6-T-B1

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------|
|  | - 0 - |  | | - Asphalt |
| | - 1 - | | | - Sand, medium to coarse grain, variegated, small cobbles 0.25-5 in |
| | - 2 - | | | |
| | - 3 - | | | |
| | - 4 - | | | |
| | - 5 - | | | |
| | - 6 - | | | |
| | - 7 - | | | |
| | - 8 - | | | |
| | - 9 - | | | - Cobbles become more abundant |
| | - 10 - |  | 10 | |
| | - 11 - | | | |
| | - 12 - | | | |
| | - 13 - | | | |
| | - 14 - | | | |
| | - 15 - | | | |
| | - 16 - | | | |
| | - 17 - | | | |
| | - 18 - | | | |
| | - 19 - | | | |
| | - 20 - | | | |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-5 ft
- Screened 2-in I.D. PVC pipe, 5-10 ft
- Concrete, 0-4 ft
- Bentonite, 4-5 ft
- Clean sand, 5-10 ft

b6tmv1

TANK NO. B-6-TMONITORING WELL NO. B-6-T-MV1

TABLE B-6-T: CHEMICAL ANALYSES

| PARAMETER | SAMPLE I.D. | | |
|-------------------------------|-------------|---------|-----------|
| | | | |
| | BACK | TTL | B-6-T |
| | GROUND | | B1 |
| | SAMPLE | | COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | N.D. |
| Benzene | <0.2 | | |
| Carbon Disulfide | | | |
| 1,1 Dichloroethene | <0.1 | | |
| Methylene Chloride | <0.5 | | |
| Perchloroethylene | <0.4 | | |
| 1,1,1 Trichloroethane | <0.2 | | |
| Trichloroethylene | <0.3 | * 2,040 | |
| Toluene | <0.4 | | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. |
| CAM Metals (ug/kg) | | | N.T. |
| Antimony | <2.5 | 500 | |
| Arsenic | 12.7 | 500 | |
| Barium | 43.4 | 10,000 | |
| Beryllium | <1.0 | 75 | |
| Cadmium | <0.5 | 100 | |
| Chromium (Total) | 6.3 | 2,500 | |
| Cobalt | 4.3 | 8,000 | |
| Copper | 8.6 | 250 | |
| Lead | <2.5 | 1,000 | |
| Mercury | <0.1 | 20 | |
| Molybdenum | 6.9 | 3,500 | |
| Nickel | 4.1 | 2,000 | |
| Selenium | <2.5 | 100 | |
| Silver | <2.5 | 500 | |
| Thallium | <2.5 | 700 | |
| Vanadium | 12.7 | 2,400 | |
| Zinc | 21.4 | 2,500 | |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. |
| Others | | | N.T. |
| pH | 8.19 | N.A. | |
| Chloride (ug/kg) | N.T. | N.A. | |
| Cyanide (ug/kg) | N.T. | N.A. | |
| Fluoride (ug/kg) | N.T. | 18,000 | |
| Nitrate (ug/kg) | N.T. | N.A. | |
| Sulfate (ug/kg) | N.T. | N.A. | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

FIELD PROGRAM

One boring, B-6-U-B1, and one vapor monitoring well, B-6-U-MV1, were drilled/installed to monitor subsurface conditions at waste oil Tank B-6-U.

BORING B-6-U-B1/VAPOR MONITORING WELL B-6-U-MV1

Monitoring Installations - Boring B-6-U-B1 was drilled as indicated on the site map. Upon completion, the boring was backfilled to 12 feet and a vapor monitoring well was installed. The tank was not included in the original work plan but was sampled under the direction of Al Mr. Novak of the RWQCB, who was on site during the drilling.

Sampling Intervals - Soil samples were taken from Boring B-6-U-B1 at depths of 5, 10, 20, 30 and 40 feet, as approved by Mr. Novak.

Field Observations - The medium to coarse grain size of the sand remained consistent throughout the entire boring. The frequency of cobbles increased at 9 feet and continued intermittently throughout the boring. The soil was black in color throughout the first 5 feet. At 5 feet the color changed drastically from black to variegated light brown.

Indications of possible contamination were based upon observations of odor, color, moisture content and consistency of the soils. The soil from the surface to 5 feet had a strong odor indicating possible contamination.

The possibility of contamination of the soil was sufficient to warrant placing the auger cuttings in two 55-gallon drums approved for storage of hazardous waste.

LABORATORY PROGRAM AND ANALYSIS

Laboratory Program - Based on field observations indicating the potential presence of contaminants in the soil samples from Boring B-6-U-1, individual depth samples were analyzed for organics and a composite sample was analyzed for CAM metals in the laboratory.

Laboratory Analysis - The pertinent laboratory analysis results are summarized in Table B-6-U. A total of four volatile organics was detected in the samples, suggesting that the soils had been contaminated. The concentration levels range from a low of 3 ug/kg of trichloroethene to a high of 661 ug/kg of tetrachloroethene. The highest concentrations were registered with the shallowest sample (5 feet).

TANK B-6-U (continued)

The levels of metals detected range from a low of 0.28 mg/kg of mercury to a high of 53 mg/kg of barium. These levels are below the Total Threshold Limit Concentration (TTL) limits.

CONCLUSIONS

The laboratory results show moderate levels of four volatile organics and a trace of mercury in the soil samples, indicating that the soils have been contaminated and suggesting that the tank could be the source of contamination.

RECOMMENDATION

Additional subsurface sampling and analysis should be conducted to further determine whether the origin of the contamination is from the leakage of the tank and to quantify the extent of contamination.

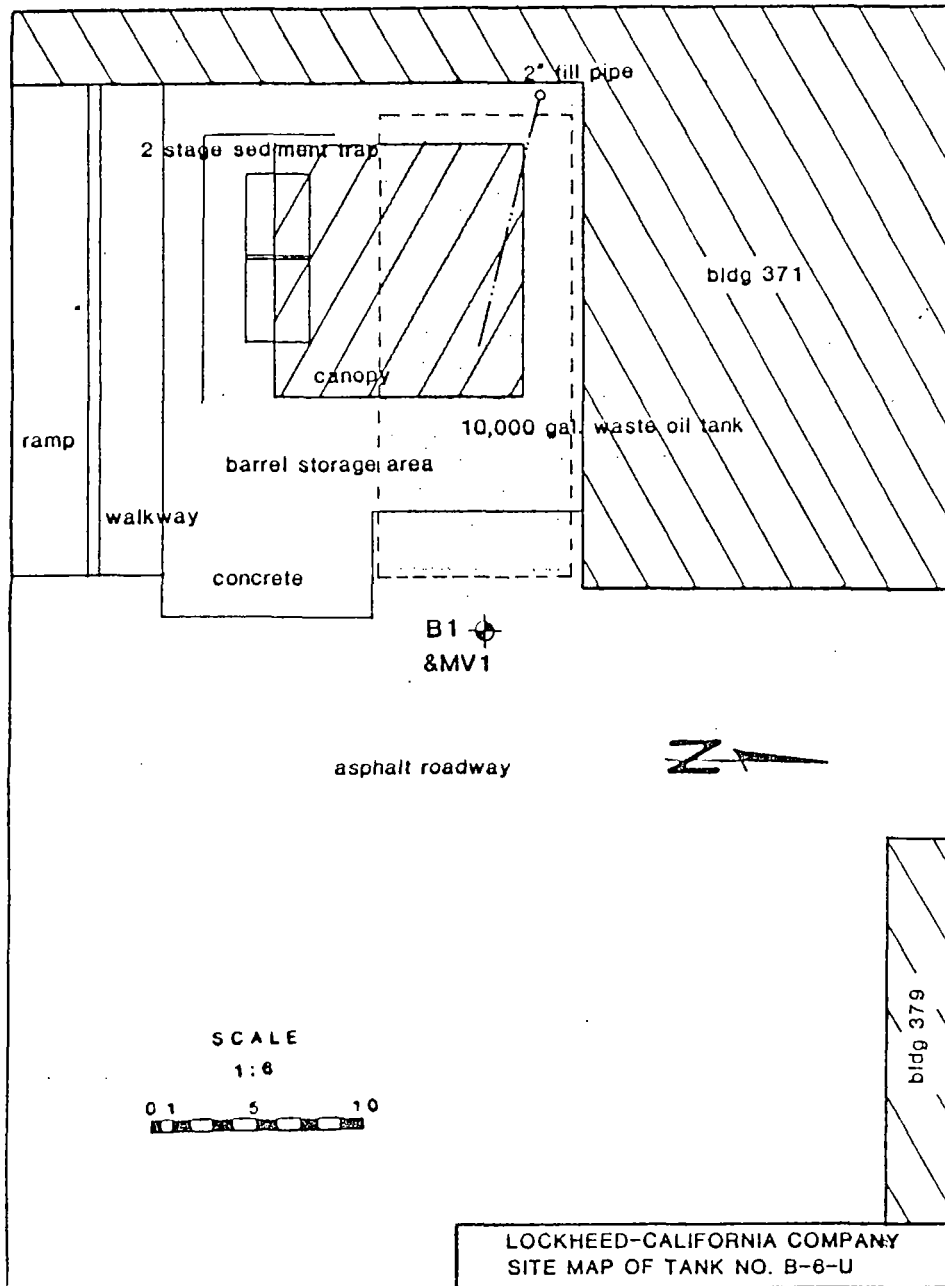
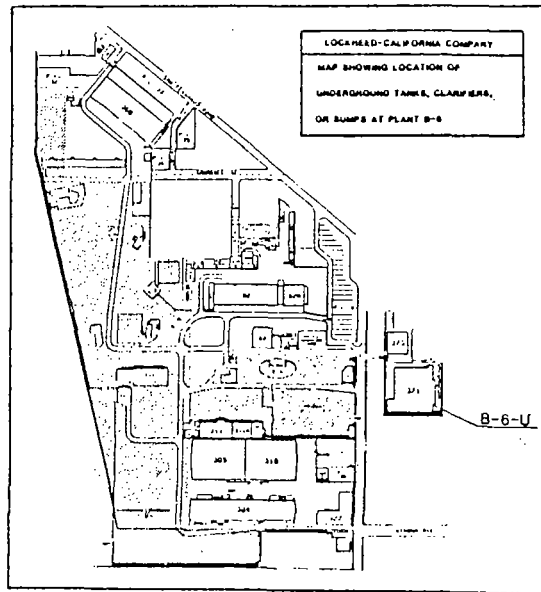
TANK NUMBER B-6-U supplement**ADDITIONAL INVESTIGATIONS**

The analysis of soil samples collected near Tank B-6-U during the initial drilling indicated moderate levels of several volatile organic substances. Although Tank B-6-U currently contains waste oil, it may have contained similar substances such as those found in the soil in the past. Being the obvious potential source of the contamination, Tank B-6-U was hydrostatically tested by Horner Creative Metals, Inc. of Kawkawlin, Michigan on May 31, 1985. The test is a hydrostatic evaluation and can detect leaks in tanks and related piping systems with a level of detection of ± 0.05 gallons per hour. This is the approved level of detection according to National Fire Prevention Authority (N.F.P.A.) #329. The results of the test (Appendix C) indicated that the tank is "certified tight" as is, not leaking within the acceptable level of detection. Also supporting the conclusion that the tank does not leak is the fact that no oil has been added to the tank in at least one year (reported by Lockheed personnel) and the tank remains completely full.

It is therefore concluded that the contamination present in the nearby soil did not originate from leakage of Tank B-6-U. It is not unlikely that soil contamination may have originated with previous non-CALAC occupants. However, a possible source may be leakage from 55-gallon drums stored in the area.

FURTHER RECOMMENDATIONS

Proceed with quarterly monitoring of vapor monitoring well.



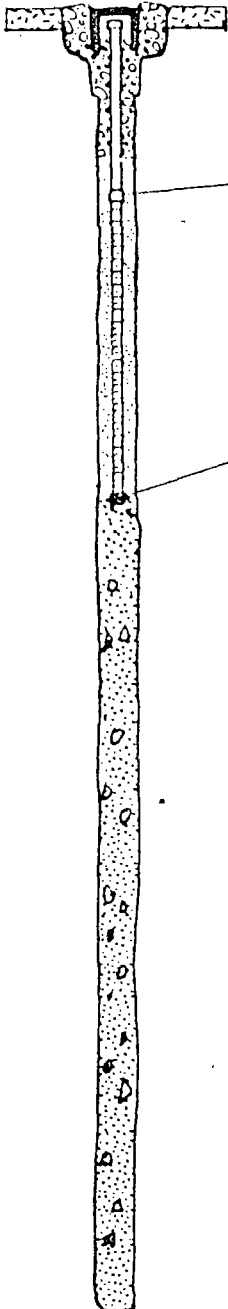
PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------|
| Tank No. | E-6-U |
| Plant No./Nearest Bldg. | 186/ Bldg. 371 (SE Corner) |
| Tank: | Location |
| | 2801 N. Hollywood Way |
| | Installation Date |
| | UNK |
| | Capacity, gal. |
| | 10,000 |
| | Use/Process |
| | Storage of waste oil |
| | Contents (past, CAS No., date) |
| | Waste oil 00332305 |
| | (present, CAS No.) |
| | Waste oil 00332305 |
| | Construction Materials |
| | UNK |
| | Geometry |
| | UNK |
| | Depth To Top |
| | UNK |
| | Depth To Invert |
| | UNK |
| | Diameter |
| | UNK |
| | Length (L) |
| | UNK |
| | Containment |
| | None |
| | Corrosive Protection (2) |
| | None |
| | Status |
| | In service |
| Tank Piping: | Number |
| | UNK |
| | Type |
| | UNK |
| | Construction Mat. |
| | Steel |
| Site: | Paving Material/Thickness |
| | Concrete/6 in |
| | Appearance |
| | Good |
| | Surface Contamination |
| | None |
| Drilling Program | Log Type/Requirements (3) |
| | M.S. Nuger |
| | Borings (No.) |
| | 1 |
| | Sample Depths |
| | 81/5, 10, 20, 30, 40 |
| | Vapor Wells/Lysimeters (No.) |
| | 1 |
| | Sample Depths |
| | MVI/REF. 10 61 |
| | Completion Interval |
| | MVI/3-12 ft |
| Laboratory Program (4) | No. of Tank Content Samples |
| | 0 |
| | Parameters |
| | No. of Tank Soil Samples |
| | 11 Comp. |
| | Parameters |
| | Vol. Org., LHM |

PERTINENT CONSTRUCTION AND PROGRAM DATA

| | |
|-------------------------|--------------------------------|
| Tank No. | 8-3-3 |
| Plant No./Nearest Bldg. | 601 Bldg. 711 152 Corridor |
| Tank: | Location |
| | Instillation Date |
| | Capacity, gal. |
| | User/Process |
| | Contents (past, LMS no., date) |
| | (present, LMS no.,) |
| | Construction Materials |
| | Geometry |
| | Depth to top |
| | Depth to invert |
| | Diameter |
| | Length (L) |
| | Containment |
| | Corrosive Protection (C) |
| | Status |
| Tank Piping: | Number |
| | Type |
| | Construction Mat. |
| Site: | Paving material/Thickness |
| | Appearance |
| | Surface Contamination |
| Drilling Program | Rig type/requirements (C) |
| | Borings (NO.) |
| | Sample Depths |
| | Vapor Wells/Lysimeters (NO.) |
| | Sample Depths |
| | Completion Interval |
| Laboratory Program (4) | |
| | No. of Tank Content Samples |
| | Parameters |
| | No. of Tank Soil Samples |
| | Parameters |

0840

| CONSTRUCTION DETAILS | DEPTH | LOG | BLOW CNTS | LITHOLOGIC DESCRIPTION |
|------------------------------------------------------------------------------------|--------|-----|--------------|----------------------------------------------------------------------|
|  | - 0 - | | | Asphalt |
| | - 2 - | | | Sand, medium to coarse grain, black, strong petroliferous odor, |
| | - 4 - | | | changing to dark brown, red @ 2 ft, |
| | - 6 - | | 27 | occasional cobbles at 5 ft, Sand, medium to coarse grain, variegated |
| | - 8 - | | | Cobbles |
| | - 10 - | | 43 | |
| | - 12 - | | | |
| | - 14 - | | | |
| | - 16 - | | | |
| | - 18 - | | | |
| | - 20 - | | 53 | Sand, medium to coarse grain, brown, variegated |
| | - 22 - | | | petroliferous odor continues to 30 ft & fades to slight |
| | - 24 - | | | |
| | - 26 - | | | some pea gravel & coarse sand |
| | - 28 - | | | |
| | - 30 - | | 50 | |
| | - 32 - | | | |
| | - 34 - | | | |
| | - 36 - | | | |
| | - 38 - | | | Sand, fine to medium grain, occasional cobble slight petroleum odor |
| | - 40 - | | 15 | brown |

COMPLETION & BACKFILL

- Blank 2-in I.D. PVC pipe, 0.3-3 ft
- Screened 2-in I.D. PVC pipe, 3-12 ft
- Concrete, 0-2 ft
- Bentonite, 2-3 ft
- Clean sand, 3-12 ft
- Native, 12-40 ft

TANK NO. B-6-UBORING NO. B-6-U-B1

TABLE B-6-U: CHEMICAL ANALYSES

0840

| PARAMETER | SAMPLE I.D. | | | | | | | |
|-------------------------------|--------------------------|---------|-------------|--------------|--------------|--------------|--------------|-----------------|
| | BACK GROUND SAMPLE | TTL | | | | | | |
| | | | B-6-U | B-6-U | B-6-U | B-6-U | B-6-U | B-6-U |
| | | | B1 5 ft. | B1 10 ft. | B1 20 ft. | B1 30 ft. | B1 40 ft. | B1 COMPOSITE |
| Volatile Organics (ug/kg) | | N.A. | | N.D. | | N.D. | | N.T. |
| Benzene | <0.2 | | N.D. | | N.D. | | N.D. | |
| Carbon Disulfide | | | N.D. | | N.D. | | N.D. | |
| 1,1 Dichloroethene | <0.1 | | N.D. | | N.D. | | N.D. | |
| Methylene Chloride | <0.5 | | N.D. | | N.D. | | N.D. | |
| Perchloroethylene | <0.4 | | 661 | | N.D. | | 14.4 | |
| 1,1,1 Trichloroethane | <0.2 | | 4.3 | | N.D. | | N.D. | |
| Trichloroethylene | <0.3 | * 2,040 | 2.9 | | N.D. | | N.D. | |
| Chloroform | <0.1 | | 66.3 | | 11.3 | | N.D. | |
| Toluene | <0.4 | | N.D. | | N.D. | | N.D. | |
| Petroleum Hydrocarbon (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Oil & Grease (ug/kg) | <1.0 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| CAM Metals (ug/kg) | | | N.T. | N.T. | N.T. | N.T. | N.T. | |
| Antimony | <2.5 | 500 | | | | | | <2.5 |
| Arsenic | 12.7 | 500 | | | | | | 16.1 |
| Barium | 43.4 | 10,000 | | | | | | 53.1 |
| Beryllium | <1.0 | 75 | | | | | | <1.0 |
| Cadmium | <0.5 | 100 | | | | | | <0.5 |
| Chromium (Total) | 6.3 | 2,500 | | | | | | 7.9 |
| Cobalt | 4.3 | 8,000 | | | | | | 4.8 |
| Copper | 8.6 | 250 | | | | | | 12.9 |
| Lead | <2.5 | 1,000 | | | | | | 4.5 |
| Mercury | <0.1 | 20 | | | | | | 0.278 |
| Molybdenum | 6.9 | 3,500 | | | | | | 8.7 |
| Nickel | 4.1 | 2,000 | | | | | | 4.5 |
| Selenium | <2.5 | 100 | | | | | | <2.5 |
| Silver | <2.5 | 500 | | | | | | <2.5 |
| Thallium | <2.5 | 700 | | | | | | <2.5 |
| Vanadium | 12.7 | 2,400 | | | | | | 17.2 |
| Zinc | 21.4 | 2,500 | | | | | | 28.7 |
| Aluminum (ug/kg) | 18.9 | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Sodium (ug/kg) | N.T. | N.A. | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| Others | | | N.T. | N.T. | N.T. | N.T. | N.T. | N.T. |
| pH | 8.19 | N.A. | | | | | | |
| Chloride (ug/kg) | N.T. | N.A. | | | | | | |
| Cyanide (ug/kg) | N.T. | N.A. | | | | | | |
| Fluoride (ug/kg) | N.T. | 18,000 | | | | | | |
| Nitrate (ug/kg) | N.T. | N.A. | | | | | | |
| Sulfate (ug/kg) | N.T. | N.A. | | | | | | |

N.A. - NOT AVAILABLE

N.D. - NOT DETECTED

N.T. - NOT TESTED

TTL - TOTAL THRESHOLD LIMIT CONCENTRATION

* ug/kg

APPENDIX C
LABORATORY REPORTS



Analytical Technologies, Inc.

Corporate Offices: 225 W. 30th Street, National City, CA 92050 619 477-4173

I.D. #01-001429

September 24, 1984

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Dean Gregg

Project No.: 84-106-002
Project Name: Lockheed

On August 31, 1984, Analytical Technologies, Inc. received nine (9) soil samples for analysis of petroleum hydrocarbons, and one (1) fuel sample for component identification. The soil samples were extracted with freon, the extract then analyzed by IR, (EPA Method 418.1). The fuel sample was screened on a Finnigan OWA GC/MS and found to be a mixture of gasoline and diesel.

Attached are the test results, GC/MS printouts of the gasoline standard, and the fuel mixture.

Mikayo Langhofer
Technical Associate

Reviewed by

Robert V. Woods
Inorganic Supervisor

Attachments

Note: Samples from this project will be disposed of in 30 days from the date of this report, unless we are informed otherwise.

0840

I.D. #01-001429

ANALYTICAL TECHNOLOGIES, INC.

DATA SHEET

Gregg & Associates

Received: 8/31/84
Reported: 9/24/84

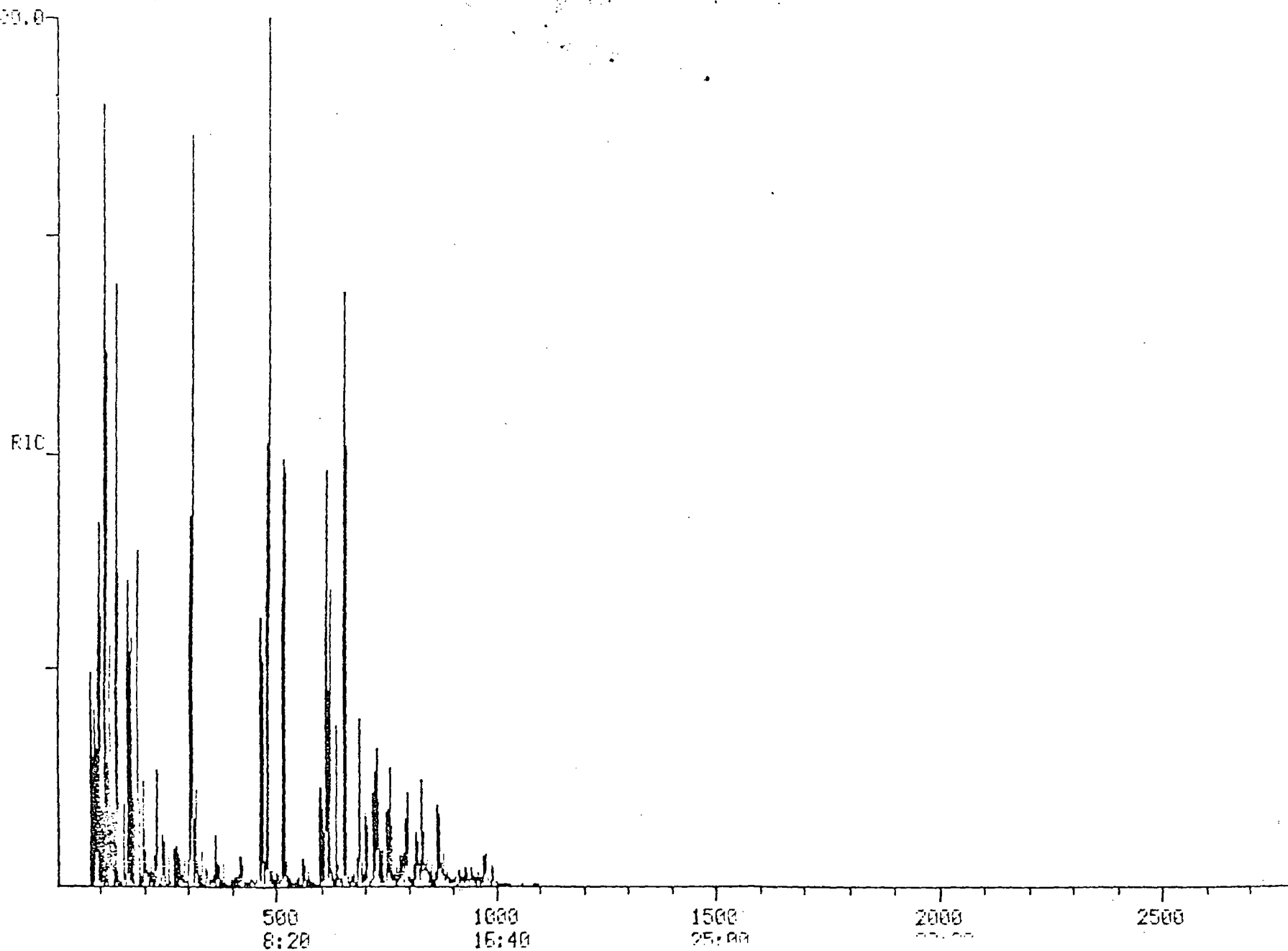
| <u>SAMPLE</u> | <u>PETROLEUM HYDROCARBONS (mg/Kg)</u> |
|---------------------|---------------------------------------|
| B6-F-2-MV2 8/27 | <2.0 |
| B6-F-28-MV1 8/29 | 15.6 |
| B6-F-30-MV1 8/29 | <2.0 |
| B6-F-30-MV3 8/30 | <2.0 |
| B6-F-30-MV2 8/30 | <2.0 |
| B6-F-28-MV2 8/30 | <2.0 |
| B6-F-2-MV1 8/27 | <2.0 |
| B6-F-4-MV1 8/28 | <2.0 |
| B6-F-6/F-7-MV1 8/29 | 20.8 |

RIC
03/20/84 10:55:00
SAMPLE: GASOLINE STD 0.5UL INJ

DATA: GASSTD

SCAN 1 TO 2800

505856.



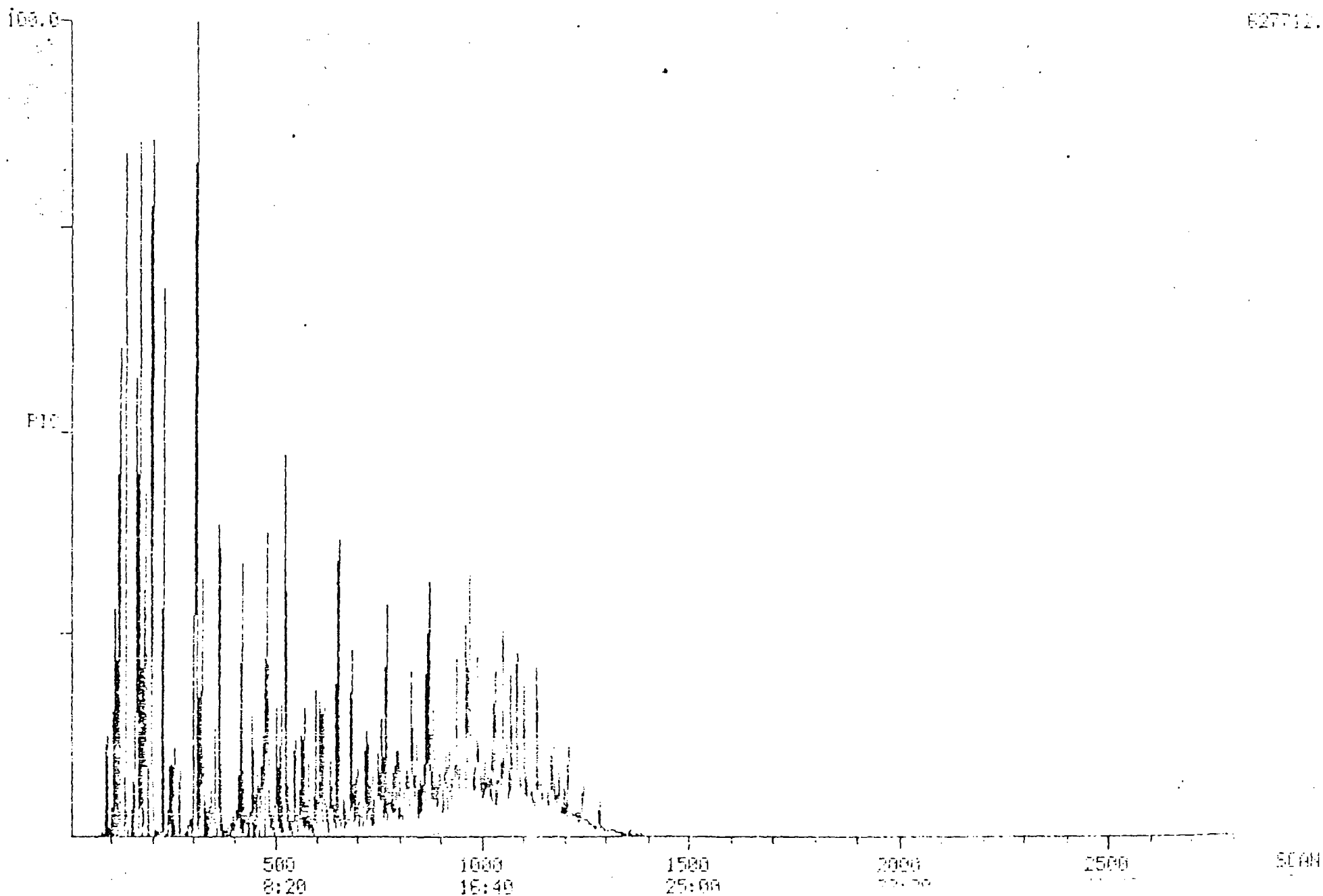
0840

FIC
03/17/84 20:42:00
SAMPLE: 1429 0.5UL INJ HEAT

DATA: 1429 F-7

SCANS 1 TO 2800

627712.



0840



Analytical Technologies, Inc.

Corporate Offices 225 W 30th Street National City, CA 92050 619 477-4173

I.D. 01-001448

RECEIVED DEC 18 1984

October 15, 1984

Gregg & Associates
18351 Beach Blvd.
Huntington Beach, CA 92647

Attention: Dean Gregg

Re: Lockheed Project; #84-106-002


On September 7, 1984 Analytical Technologies, Inc. received the first shipment of samples collected from the Lockheed project site. The shipment contained a total of thirty-seven (37) soil samples. Described below is the disposition of each sample.

- 1) These samples were analyzed for petroleum hydrocarbons (EPA Method 418.1).
 B6-F26-MV1 composited with B6-F26-MV2
 B6-F3-MV1 composited with B6-F3-MV2
 B6-F31-MV1 13-14'
- 2) These samples were analyzed for fuels using GC/FID / volatile organics by GC/MS (EPA Method 8240).

| | |
|-------------|-----------------------------|
| B6-Q-B1 5' | B6-Q-B1 40' |
| B6-Q-B1 10' | B6-N-B1 9-10' |
| B6-Q-B1 15' | B6-N-B1 14-15' |
| B6-Q-B1 23' | B6-N-B1 24' composited with |
| B6-Q-B1 32' | B6-N-B1 39' |
- 3) These samples were analyzed for pH, metals, anions, cyanide and petroleum hydrocarbons.

| | |
|----------------|---------------|
| B6-K-B1 3-4' | B6-K-MV1 8-9' |
| B6-K-B1 9-10' | |
| B6-K-B1 14-15' | |
| B6-K-B1 25' | |
| B6-K-B1 39-40' | |
- 4) These are duplicate samples, which have been archived.

| | | |
|------|----------------|----------------|
| | B6-Q-B1 3-4' | B6-N-B1 39' |
| 2 of | B6-Q-B1 5' | B6-K-B1 9-10' |
| 2 of | B6-Q-B1 10' | B6-K-B1 14-15' |
| 2 of | B6-Q-B1 15' | B6-K-B1 25' |
| 2 of | B6-Q-B1 23' | |
| | B6-Q-B1 32' | |
| | B6-Q-B1 40' | |
| | B6-N-B1 9-10' | |
| | B6-N-B1 14-15' | |
| | B6-N-B1 24' | |



I.D. 01-001448
Gregg & Associates
Page 2

All analyses were completed in accordance with EPA methods or equivalent. If you have any questions, please call.

Carolyn A. Sites
Carolyn A. Sites
Data Manager

Reviewed by *Mark King*
Mark King
Laboratory Supervisor

CAS:mat

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

I.D. 01-001448

Fuel Analyses using GC

Gregg & Associates
Lockheed ProjectReceived: 9-7-84
Analyzed: 9-28-84

| <u>Sample I.D.</u> | <u>Stoddard Solvent (mg/kg)</u> | <u>Diesel Fuel (mg/kg)</u> |
|----------------------------|-------------------------------------|--------------------------------|
| B6-Q-B1 @ 5' | <6 | <20 |
| B6-Q-B1 @ 10' | <6 | <20 |
| B6-Q-B1 @ 15' | <6 | <20 |
| B6-Q-B1 @ 23' | <6 | <20 |
| B6-Q-B1 @ 32' | <6 | <20 |
| B6-Q-B1 @ 40' | <6 | <20 |
| B6-N-B1 @ 14-15' | <6 | <20 |
| Duplicate B6-N-B1 @ 14-15' | <6 | <20 |

| <u>Spike Recovery</u> | <u>Found</u> | <u>Expected</u> | <u>% Recovery</u> |
|-----------------------|--------------|-----------------|-------------------|
| B6-N-B1 @ 14-15' | 225.4 ppm | 250.4 ppm | 90% |

DATA SUMMARY

Gregg & Associates
Lockheed Project

Received: 9-7-84
Analyzed: 9-17 to 19-84

| <u>Sample I.D.</u> | <u>pH</u> (units) | <u>Chloride</u> (mg/kg) | <u>Fluoride</u> (mg/kg) | <u>Nitrate</u> (mg/kg) | <u>Sulfate</u> (mg/kg) | <u>Aluminum</u> (mg/kg) | <u>Chromium</u> (mg/kg) | <u>Cyanide</u> (mg/kg) |
|--------------------|----------------------|----------------------------|----------------------------|---------------------------|---------------------------|----------------------------|----------------------------|---------------------------|
| B6-K-B1 3-4' | 7.84 | 3.5 | <0.5 | <2 | 13.9 | 8,900 | 8.0 | NR |
| B6-K-B1 9-10' | 4.94 | 2.5 | <0.5 | <2 | 6.7 | 6,410 | 3.5 | <2 |
| B6-K-B1 14-15' | 7.01 | NR | <0.5 | NR | NR | 5,430 | 4.0 | <2 |
| B6-K-B1 25' | 5.61 | 2.3 | <0.5 | NR | 21.2 | 9,390 | 8.1 | <2 |
| B6-K-B1 39-40' | 6.54 | 1.6 | <0.5 | <2 | 6.7 | 5,910 | 4.5 | <2 |
| B6-K-MV1 8-9' | 6.59 | NR | <0.5 | NR | NR | 6,550 | 3.6 | NR |
| B6-Q-B1 @ 5' | 5.82 | | | | | | | |
| B6-Q-B1 @ 10' | 5.47 | | | | | | | |
| B6-Q-B1 @ 15' | 7.14 | | | | | | | |
| B6-Q-B1 @ 23' | 6.80 | | | | | | | |
| B6-Q-B1 @ 32' | 5.63 | | | | | | | |
| B6-Q-B1 @ 40' | 5.20 | | | | | | | |

QUALITY CONTROL DATA

DUPLICATES

MATRIX SPIKES

| Parameter | Sample I.D. | 1st Result | 2nd Result | R.P.D. | Sample I.D. | Result | True | % Recovery |
|-----------|---------------------|------------|------------|--------|---------------------|--------|-------|------------|
| pH | B6-K-B1 (39-40') | 6.51 | 6.56 | .007 | | | | |
| Chromium | B6-K-B1 (3-4') | 10.0 | 7.7 | 28.4 | B6-K-B1 (3-4') | 14.0 | 15.0 | 93.3 |
| Aluminum | B6-K-B1 (3-4') | 9940 | 7870 | 23.2 | B6-K-B1 (3-4') | 9280 | 9460 | 98.1 |
| Cyanide | | | | | B6-K-B1 (39-40') | 43 ug | 46 ug | 93.5 |
| Chloride | B6-K-B1 (39-40') | 1.6 | 1.7 | | other | 0.86 | 0.85 | 101 |
| Sulfate | B6-K-B1 | 6.4 | 7.0 | | other | 9.84 | 9.15 | 107 |

R.P.D. = Relative Percent Difference

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & Associates Sample I.D.: 86-Q-B1 @ 5'
 Sample Matrix: Soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | 37.3 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | 48.5 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | 30.0 | Carbon Disulfide |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| 24.0 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .80 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| 16.5 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| 37.0 | Trichloroethene | | |
| 34.3 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)
DATA SUMMARY

| | |
|---------------------------------------|-------------------------------------|
| Client: <u>Gregg & Associates</u> | Sample I.D.: <u>B6-Q-B1 @ 10'</u> |
| Sample Matrix: <u>Soil</u> | Date Collected: <u>9-6-84</u> |
| Method No.: <u>EPA 8240</u> | Date Received by Lab: <u>9-7-84</u> |
| Direct Sparge | Date Analyzed: <u>9-12-84</u> |

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|-----------------|---------------------------|-----------------|---------------------|
| <u>< .63</u> | Bromomethane | <u>< .55</u> | Benzene |
| <u>< .63</u> | Chloromethane | <u>< .75</u> | Chlorobenzene |
| <u>< .28</u> | Bromodichloromethane | <u>< .75</u> | Toluene |
| <u>< .39</u> | Dibromochloromethane | <u>< .90</u> | Ethylbenzene |
| <u>< .35</u> | Methylene Chloride | <u>< .63</u> | Acrolein |
| <u>< .59</u> | Bromoform | <u>< .63</u> | Acrylonitrile |
| <u>< .20</u> | Chloroform | <u>< 1.3</u> | Methyl Ethyl Ketone |
| <u>< .35</u> | Carbon Tetrachloride | <u>< 1.3</u> | Acetone |
| <u>< .63</u> | Trichlorofluoromethane | | |
| <u>< .63</u> | Chloroethane | | |
| <u>< .35</u> | 1,1-Dichloroethane | | |
| <u>< .35</u> | 1,2-Dichloroethane | | |
| <u>< .48</u> | 1,1,1-Trichloroethane | | |
| <u>< .63</u> | 1,1,2-Trichloroethane | | |
| <u>< .86</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< .63</u> | Vinyl Chloride | | |
| <u>< .35</u> | 1,1-Dichloroethene | | |
| <u>< .20</u> | Trans-1,2-Dichloroethene | | |
| <u>< .24</u> | Trichloroethene | | |
| <u>< .51</u> | Tetrachloroethene | | |
| <u>< .63</u> | 2-Chloroethylvinylether | | |
| <u>< .75</u> | 1,2-Dichloropropane | | |
| <u>< .63</u> | CIS - 1,3-Dichloropropene | | |
| <u>< .63</u> | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & Associates Sample I.D.: B6-Q-B1 @ 15'
 Sample Matrix: Soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | < .55 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | < .75 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | 23.8 | Carbon Disulfide |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Clegg & Associates Sample I.D.: B6-N-B1 @ 9-10'
 Sample Matrix: Soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | 10.5 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | 28.8 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | | |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Grepp & Associates Sample I.D.: B6-N-b1 24' and 39' (Composite)
 Sample Matrix: Soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | < .55 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | < .75 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | 25.4 | Carbon Disulfide |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

0840

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Cregg & Associates Sample I.D.: B6-0-B1 @ 23'
 Sample Matrix: Soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|-----------------|---------------------------|-----------------|---------------------|
| <u>< .63</u> | Bromomethane | <u>11.0</u> | Benzene |
| <u>< .63</u> | Chloromethane | <u>< .75</u> | Chlorobenzene |
| <u>< .28</u> | Bromodichloromethane | <u>27.0</u> | Toluene |
| <u>< .39</u> | Dibromochloromethane | <u>< .90</u> | Ethylbenzene |
| <u>< .35</u> | Methylene Chloride | <u>< .63</u> | Acrolein |
| <u>< .59</u> | Bromoform | <u>< .63</u> | Acrylonitrile |
| <u>< .20</u> | Chloroform | <u>< 1.3</u> | Methyl Ethyl Ketone |
| <u>< .35</u> | Carbon Tetrachloride | <u>< 1.3</u> | Acetone |
| <u>< .63</u> | Trichlorofluoromethane | | |
| <u>< .63</u> | Chloroethane | | |
| <u>< .35</u> | 1,1-Dichloroethane | | |
| <u>< .35</u> | 1,2-Dichloroethane | | |
| <u>< .48</u> | 1,1,1-Trichloroethane | | |
| <u>< .63</u> | 1,1,2-Trichloroethane | | |
| <u>< .86</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< .63</u> | Vinyl Chloride | | |
| <u>< .35</u> | 1,1-Dichloroethene | | |
| <u>< .20</u> | Trans-1,2-Dichloroethene | | |
| <u>< .24</u> | Trichloroethene | | |
| <u>< .51</u> | Tetrachloroethene | | |
| <u>< .63</u> | 2-Chloroethylvinylether | | |
| <u>< .75</u> | 1,2-Dichloropropane | | |
| <u>< .63</u> | CIS - 1,3-Dichloropropene | | |
| <u>< .63</u> | Trans-1,3-Dichloropropene | | |

0840

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & Associates Sample I.D.: E6-O-B1 @ 32'
Sample Matrix: Soil Date Collected: 9-6-84
Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | 11.5 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | 29.3 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | | |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Greig & Associates Sample I.D.: 86-0-81 6 40
 Sample Matrix: soil Date Collected: 9-6-84
 Method No.: EPA 8240 Date Received by Lab: 9-7-84
Direct Sparge Date Analyzed: 9-12-84

| <u>ug/kg</u> | | <u>ug/kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | 9.8 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | 32.0 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | | |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |

I.D. 01-001448

Gregg & Associates
Lockheed ProjectReceived: 9-7-84
Analyzed: 9-21-84Petroleum Hydrocarbons by IR
EPA Method 418.1

| <u>Sample I.D.</u> | <u>mg/kg</u> |
|-----------------------------------|--------------|
| Composite B6-F26-MV1 & B6-F26-MV2 | < 2 |
| Composite B6-F3-MV1 & B6-F3-MV2 | 2.1 |
| B6-F31-MV1 @ 13-14' | 70.8 |
| B6-K-B1 @ 3-4' | < 2 |
| B6-K-B1 @ 9-10' | < 2 |
| B6-K-B1 @ 14-15' | < 2 |
| B6-K-B1 @ 25' | < 2 |
| B6-K-B1 @ 39-40' | 2.2 |
| B6-K-MV1 @ 8-9' | < 2 |
| Duplicate B6-F26 composite | < 2 |
| Duplicate B6-KB1 @ 14-15' | < 2 |

| <u>Spike Recoveries</u> | <u>%</u> |
|-------------------------|----------|
| B6-F26 MV composite | 100.8% |
| B6-K-B1 @ 3-4' | 96.1% |



Analytical Technologies, Inc.

Corporate Offices: 225 W. 30th Street National City, CA 92050 619 477-4173

I.D.# 01-001459

October 15, 1984

Gregg & Associates
18351 Beach Blvd.
Huntington Beach, CA 92647

Attention: Dean Gregg

RE: Lockheed project; #84-100-002

On September 7, 1984 Analytical Technologies, Inc. received a second shipment of 21 soil samples collected from the Lockheed project site. Described below is the disposition of each sample.

- 1) These samples were analyzed for petroleum hydrocarbons and/or oil and grease using IR (EPA Method 418.1 and 413.2)
B6-F5-MV1 (15') composited with B6-F5-MV2 (15')
B6-F27-MV1 (15-16') composited with B6-F27-MV2 (15-16')
Composite of B6-R-B1 (20') B6-R-B1 (30') and B6-R-B1 (40')
Composite of B6-R-B2(20') B6-R-B2(25') and B6-R-B2 (30')
Composite of B6-R-B3(15') and B6-R-B4(15')
B6-F-25-(15')
- 2) These samples were composited and analyzed for volatile organics (EPA Method 8240) and the CAM list of metals.
B6-M-B1 (9-10')
B6-M-B1 (14-15')
B6-M-B1 (24-25')
B6-M-B1 (39-40')
- 3) This sample was analyzed for pH and sulfates.
B6-H-MV1 (12-13)
- 4) These remaining samples were archived.
B6-M-B1 (6-7') 3" and 6" soil tubes
B6-R-B1 (8') 3" and 6" soil tubes
B6-R-B2 (8") 3" and 6" soil tubes

All samples analyses were completed in accordance with EPA methods or equivalent. If you have any questions, please call

Carolyn Sites
Carolyn Sites
Data Manager

Reviewed by

Mark King
Mark King

Laboratory Supervisor

CS/br

PETROLEUM HYDROCARBONS AND OIL AND GREASE
(EPA Methods 418.1 and 413.2)Gregg & Associates
Lockheed ProjectReceived: 9/7/84
Analyzed: 10/10/84

| <u>Sample I.D.</u> | <u>Petroleum Hydrocarbons</u> <u>mg/kg</u> | <u>Oil & Grease</u> <u>mg/kg</u> |
|-------------------------------------------|-----------------------------------------------|-----------------------------------------|
| B6-F5-MV 1&2 (composite) | 7.71 | NR* |
| B6-F27-MV 1&2 (composite) | 10.7 | NR* |
| B6-R-B1 @ 20', 30' and 40' (composite) | 24.3 | 23.3 |
| B6-R-B2 @ 20', 25' and 30' (composite) | < 1.0 | < 1.0 |
| B6-R-B3 and B6-R-B4 (composite) | 22.2 | 21.5 |
| B6-F-25 | 1.27 | NR* |
| Spike Recovery | | |
| B6-F27-MV 1&2 | 83.0% | |

*NR = not a requested test

CAM METALS (TTLC)

Gregg & Associates
Lockheed Project

Received: 9/7/84
Analyzed:

| <u>Test Parameter</u> | <u>B6 - M - B1 composite (9-10' thru 39 - 40')</u> | |
|-----------------------|----------------------------------------------------|--|
| | <u>(mg/kg)</u> | |
| Antimony | <2.5 | |
| Arsenic | 3.3 | |
| Barium | 43.7 | |
| Beryllium | <1.0 | |
| Calcium | <0.5 | |
| Chromium | 3.9 | |
| Chromium (hexavalent) | NT* | |
| Cobalt | 2.6 | |
| Copper | 7.5 | |
| Lead | <2.5 | |
| Mercury | <0.06 | |
| Molybdenum | <1.0 | |
| Nickel | 3.5 | |
| Selenium | <2.5 | |
| Silver | <2.5 | |
| Tellurium | <2.5 | |
| Vanadium | 11.9 | |
| Zinc | 20.7 | |

*NT = not tested because total concentration of chromium is below the soluble limits

pH and Sulfate

| | <u>pH (units)</u> | <u>Sulfate (mg/kg)</u> |
|-------------------|-------------------|------------------------|
| B6-H-MV1 (12-13') | 7.40 | 14.1 |

QUALITY CONTROL DATA

DUPLICATES

MATRIX SPIKES

| Parameter | Sample I.D. | 1st Result | 2nd Result | R.P.D. | Sample I.D. | (mg) Result | (mg) True | % Recovery |
|------------|-------------|------------|------------|--------|-------------|-------------|-----------|------------|
| Antimony | other | <2.25 | <2.5 | - | other | .025 | .025 | 100 |
| Arsenic | other | <2.25 | <2.5 | - | other | .020 | .025 | 80.0 |
| Barium | other | 109 | 81.8 | 29 | B6-M-B1 | - | - | 89.0 |
| Beryllium | other | <1.0 | <1.0 | - | B6-M-B1 | - | - | 91.0 |
| Cadmium | other | <.001 | <.001 | - | other | .042 | .050 | 84.0 |
| Chromium | other | 135 | 127 | 6.1 | other | - | - | 100 |
| Cobalt | other | 2.4 | 2.2 | 8.9 | B6-M-B1 | - | - | 88.0 |
| Copper | other | 20.9 | 17.7 | 11.4 | other | 3.04 | 3.11 | 97.0 |
| Lead | other | <.005 | <.005 | - | B6-M-B1 | .014 | .02 | 70.0 |
| Mercury | other | <0.0004 | <0.0004 | - | other | .0045 | .005 | 90.0 |
| Molybdenum | other | <1.0 | <1.0 | - | B6-M-B1 | - | - | 85.0 |
| Nickel | other | 6.7 | 5.8 | 15.9 | other | - | - | 101 |
| Selenium | other | <2.5 | <2.5 | - | other | 12.4 | 13.2 | 94.0 |
| Silver | other | <2.5 | <2.5 | - | other | - | - | 104 |
| Thallium | other | <.05 | <.05 | - | B6-M-B1 | .016 | .02 | 80.0 |
| Vanadium | other | 10.1 | 8.3 | 13.6 | B6-M-B1 | - | - | 96.0 |
| Zinc | other | 49.4 | 46.9 | 5.2 | other | - | - | 102 |

R.P.D. = Relative Percent Difference


VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

B6-M-B1

Client: Gregg & AssociatesSample I.D.: 1459 compositeSample Matrix: SoilDate Collected: 9/6/84Method No.: EPA 8240Date Received by Lab: 9/7/84Date Analyzed: 9/28/84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 125 | Bromomethane | <110 | Benzene |
| < 125 | Chloromethane | <150 | Chlorobenzene |
| < 55 | Bromodichloromethane | <150 | Toluene |
| < 78 | Dibromochloromethane | <180 | Ethylbenzene |
| < 70 | Methylene Chloride | <125 | Acrolein |
| < 118 | Bromoform | <125 | Acrylonitrile |
| < 40 | Chloroform | <250 | Methyl Ethyl Ketone |
| < 70 | Carbon Tetrachloride | <250 | Acetone |
| < 125 | Trichlorofluoromethane | | |
| < 125 | Chloroethane | | |
| < 70 | 1,1-Dichloroethane | | |
| < 70 | 1,2-Dichloroethane | | |
| < 95 | 1,1,1-Trichloroethane | | |
| < 125 | 1,1,2-Trichloroethane | | |
| < 170 | 1,1,2,2-Tetrachloroethane | | |
| < 125 | Vinyl Chloride | | |
| < 70 | 1,1-Dichloroethene | | |
| < 40 | Trans-1,2-Dichloroethene | | |
| < 48 | Trichloroethene | | |
| < 100 | Tetrachloroethene | | |
| < 125 | 2-Chloroethylvinylether | | |
| < 150 | 1,2-Dichloropropane | | |
| < 125 | CIS-1,3-Dichloropropene | | |
| < 125 | Trans-1,3-Dichloropropene | | |



Gregg & Associates
Page 2

- 5) These remaining samples were archived.
B6-F-16 @ 5'
B6-F-15 @ 5'

All sample analyses were done in accordance with EPA methods or equivalent. If you have any questions, please call.

Carolyn A. Sites

Carolyn A. Sites
Data Manager

Reviewed by

for *Mark King*
Mark King
Laboratory Supervisor

CAS:mat

Attachments

NOTE: Samples from this project will be disposed of in thirty (30)
: days from the date of this report, unless we are informed
: otherwise.

I.D. 01-001486

DATA SUMMARY

Gregg & Associates
Lockheed Project

Received: 9-14-84

Petroleum Hydrocarbons (EPA Method 418.1)

Analyzed: 10-10-84

| <u>Sample I.D.</u> | <u>mg/kg</u> |
|-----------------------------------------------|--------------|
| B6-F-16 @ 10', 20' 32' and 40' (Composite) | 3.8 |
| B6-B-G @ 10' and 20' (Composite) | 5.4 |
| B6-B-G @ 30' and 40' (Composite) | 11.4 |
| B6-B-G @ 5' | 2.6 |
| B6-F-15 @ 10' | <1.0 |
| B6-F-15 @ 22' | 2.2 |
| B-6-B (B-1) @ 12' | <1.0 |

pH Determination

Analyzed: 9-26 & 27-84

| <u>Sample I.D.</u> | <u>units</u> |
|-----------------------------------|--------------|
| B6-B-G @ 5' | 7.65 |
| Composite of B6-B-G @ 10' and 20' | 7.70 |
| Composite of B6-B-G @ 30' and 40' | 8.25 |
| B-6-B (B-2) @ 5' | 6.70 |
| B-6-B (B-2) @ 18' | 7.40 |
| B-6-B (B-2) @ 32' | 7.10 |
| B-6-B (B-2) @ 40' | 7.90 |

I.D. 01-001486

DATA SUMMARY

Gregg & Associates
Lockheed ProjectReceived: 9-14-84
Analyzed: 9-25 thru 10-8-84

| <u>Test Parameter</u> | <u>Sample I.D.</u> | | |
|--------------------------|--------------------------------------|-------------------------------------------|-------------------------------------------|
| | <u>B6-B-G @ 5'</u> <u>(mg/kg)</u> | <u>B6-B-G @ 10'-20'</u> <u>(mg/kg)</u> | <u>B6-B-G @ 30'-40'</u> <u>(mg/kg)</u> |
| Antimony | <2.5 | <2.5 | <2.5 |
| Arsenic | 5.1 | 8.9 | 10.8 |
| Barium | 35.1 | 69.4 | 60.0 |
| Beryllium | <1.0 | <1.0 | <1.0 |
| Cadmium | <0.5 | <0.5 | <0.5 |
| Chromium | 4.3 | 6.8 | 10.0 |
| Chromium (hexavalent) | <0.5 | <0.5 | <0.5 |
| Cobalt | 2.1 | 3.4 | 3.6 |
| Copper | 8.4 | 10.0 | 12.6 |
| Lead | <2.5 | <2.5 | <2.5 |
| Mercury | <0.06 | <0.06 | 0.14 |
| Molybdenum | <1.0 | <1.0 | <1.0 |
| Nickel | 3.3 | 5.7 | 6.1 |
| Selenium | <2.5 | <2.5 | <2.5 |
| Silver | <2.5 | <2.5 | <2.5 |
| Thallium | <2.5 | <2.5 | <2.5 |
| Vanadium | 9.4 | 15.7 | 16.3 |
| Zinc | 16.6 | 30.4 | 30.9 |
| Cyanide | <0.2 | <0.2 | <0.2 |
| Sulfate | 17.1 | 8.7 | 4.7 |

I.D. 01-001486

Solvent Screen using GC/FID (mg/kg)

Gregg & Associates
Lockheed Project

Received: 9-14-84
Analyzed: 10-2 & 4-84

| | Sample I.D. | | | | | | Spike Recovery (%) |
|-----------------------|------------------|------------------|----------------|-----------------|-----------------|---------------------|--------------------|
| | B6-F-16 @ 10' | B6-F-16 @ 20' | B6-B-G @ 5' | B6-B-G @ 20' | B6-B-G @ 40' | B-6-0 (M-1) @ 1' | |
| Isopropyl Alcohol | <2 | <2 | <2 | <2 | <2 | <2 | 30 |
| Methyl Ethyl Ketone | <1 | <1 | <1 | <1 | <1 | <1 | 38 |
| Metyl Isobutyl Ketone | <3 | <3 | <3 | <3 | <3 | <3 | 81 |
| Acetone | <6 | <6 | <6 | <6 | <6 | <6 | 31 |
| Tetrachloroethylene | <2 | <2 | <2 | <2 | <2 | <2 | - |
| Stoddard Solvent | <6 | <6 | <6 | <6 | <6 | <6 | - |
| Diesel Fuel | <20 | <20 | 60 | <20 | <20 | 114 | 70 |

0840

QUALITY CONTROL DATA

| DUPLICATES | | | | | MATRIX SPIKES | | | |
|------------|--------------|------------|------------|--------|---------------|-------------|-----------|------------|
| Parameter | Sample I.D. | 1st Result | 2nd Result | R.P.D. | Sample I.D. | (ug) Result | (ug) True | % Recovery |
| Antimony | B6-B-G @ 20' | <2.5 | <2.5 | - | B6-B-G @ 40' | .019 | .025 | 76.0 |
| Arsenic | other | .18 | .19 | 5.4 | other | .037 | .034 | 109 |
| Barium | other | 8.9 | 7.6 | 16 | B6-B-G @ 5' | - | - | 103 |
| Beryllium | other | <1.0 | <1.0 | - | B6-B-G @ 5' | - | - | 95.0 |
| Cadmium | other | <0.5 | <0.5 | - | other | .0043 | .005 | 86.0 |
| Chromium | other | 135 | 127 | 6.1 | other | 2.56 | 2.53 | 101 |
| Cobalt | other | <1.0 | <1.0 | - | B6-B-G @ 5' | - | - | 88.0 |
| Copper | other | 43.63 | 43.59 | .09 | other | 3.9 | 3.8 | 103 |
| Lead | other | <2.5 | <2.5 | - | other | .022 | .025 | 88.0 |
| Mercury | other | <.0004 | <.0004 | - | other | .008 | .010 | 80.0 |
| Molybdenum | B6-B-G @ 5' | <1.0 | <1.0 | - | B6-B-G @ 5' | - | - | 92.0 |
| Nickel | other | - | - | - | other | 3.41 | 3.64 | 93.7 |
| Selenium | other | <2.5 | <2.5 | - | other | 12.4 | 13.2 | 93.9 |
| Silver | other | <2.5 | <2.5 | - | other | 1.99 | 2.50 | 79.6 |
| Thallium | other | <2.5 | <2.5 | - | other | .015 | .020 | 75.0 |
| Vanadium | other | <1.0 | <1.0 | - | B6-B-G @ 5' | - | - | 95.0 |
| Zinc | other | 84.0 | 85.9 | 2.2 | other | 3.26 | 3.27 | 99.6 |
| Cyanide | other | <.02 | <.02 | - | other | .157 | .184 | 85.3 |
| Sulfate | B6-B-G @ 5' | 16.9 | 17.3 | 2.3 | other | 17.3 | 16.6 | 104 |

R.P.D. = Relative Percent Difference

0840

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & AssociatesSample I.D.: 1486 B6-F-16 @ 10Sample Matrix: SoilDate Collected: 9-13-84Method No.: DIRECT SPARGEDate Received by Lab: 9-14-84Date Analyzed: 10-18-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)
DATA SUMMARY

Client: Gregg & Associates
Sample Matrix: Soil
Method No.: DIRECT SPARGE

Sample I.D.: 1486 B6-F16-10 (DUPLICATE)
Date Collected: 9-13-84
Date Received by Lab: 9-14-84
Date Analyzed: 10-18-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & AssociatesSample I.D.: B6-F16 @ 20Sample Matrix: SoilDate Collected: 9-13-84Method No.: DIRECT SPARGEDate Received by Lab: 9-14-84Date Analyzed: 10-18-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)
DATA SUMMARYClient: Gregg & AssociatesSample I.D.: B6-Bg @ 10-20 CompositeSample Matrix: SoilDate Collected: 9-13-84Method No.: DIRECT SPARGEDate Received by Lab: 9-14-84Date Analyzed: 10-18-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |

VOLATILE ORGANIC ANALYSIS (VOA)
DATA SUMMARYClient: Gregg & Associates
Sample Matrix: Soil
Method No.: DIRECT SPARGESample I.D.: B6-Bg @ 30-40 Composite
Date Collected: 9-13-84
Date Received by Lab: 9-14-84
Date Analyzed: 10-18-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |

0840

VOLATILE ORGANIC ANALYSIS (VOA)

DATA SUMMARY

Client: Gregg & Associates Sample I.D.: B-6-0 (M-1)
Sample Matrix: Soil Date Collected: 9-13-84
Method No.: EPA 8240 Date Received by Lab: 9-14-84
Date Analyzed: 10-19-84

| <u>mg/Kg</u> | | <u>mg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < .63 | Bromomethane | < .55 | Benzene |
| < .63 | Chloromethane | < .75 | Chlorobenzene |
| < .28 | Bromodichloromethane | < .75 | Toluene |
| < .39 | Dibromochloromethane | < .90 | Ethylbenzene |
| < .35 | Methylene Chloride | < .63 | Acrolein |
| < .59 | Bromoform | < .63 | Acrylonitrile |
| < .20 | Chloroform | < 1.3 | Methyl Ethyl Ketone |
| < .35 | Carbon Tetrachloride | < 1.3 | Acetone |
| < .63 | Trichlorofluoromethane | | |
| < .63 | Chloroethane | | |
| < .35 | 1,1-Dichloroethane | | |
| < .35 | 1,2-Dichloroethane | | |
| < .48 | 1,1,1-Trichloroethane | | |
| < .63 | 1,1,2-Trichloroethane | | |
| < .86 | 1,1,2,2-Tetrachloroethane | | |
| < .63 | Vinyl Chloride | | |
| < .35 | 1,1-Dichloroethene | | |
| < .20 | Trans-1,2-Dichloroethene | | |
| < .24 | Trichloroethene | | |
| < .51 | Tetrachloroethene | | |
| < .63 | 2-Chloroethylvinylether | | |
| < .75 | 1,2-Dichloropropane | | |
| < .63 | CIS - 1,3-Dichloropropene | | |
| < .63 | Trans-1,3-Dichloropropene | | |



I.D. 01-001531

October 29, 1984

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Dean Gregg

Re: Lockheed project; #84-106

On October 2, 1984 Analytical Technologies, Inc. received the seventh shipment of thirty (30) soil samples and two (2) water samples collected from the Lockheed project site. The samples were analyzed for volatile organics, metals, anions, oil & grease and stoddard solvent. Described below is the disposition of each sample.

- 1) These samples were analyzed for volatile organics (EPA Method 8010 and 8020) using gas chromatography.

| | |
|-----------------|----------------|
| ✓B6-O-B2 @ 5' | ✓B6-O-B1 @ 5' |
| ✓B6-O-B2 @ 10' | ✓B6-O-B1 @ 10' |
| ✓B6-O-B2 @ 22' | ✓B6-O-B1 @ 22' |
| ✓B6-O-B2 @ 32' | ✓B6-O-B1 @ 27' |
| ✓B6-O-B2 @ 40' | ✓B6-O-B1 @ 32' |
| ✓A1-B-MV1 @ 15' | ✓B6-O-B1 @ 40' |
| ✓A1-Q-MV1 @ 15' | ✓A1-V |
| ✓A1-Q-MV2 @ 15' | |

✓Composite of A1-B-B1 @ 10', 22', 32' and 40'
 ✓Composite of A1-B-B2 @ 15', 22', 32' and 40'
 ✓Composite of A1-P-B1 @ 10', 22', 32' and 40'

- 2) These samples were analyzed for petroleum hydrocarbons (EPA Method 418.1) using IR.

| | |
|----------------|----------------|
| ✓B6-O-B2 @ 5' | ✓B6-O-B1 @ 5' |
| ✓B6-O-B2 @ 10' | ✓B6-O-B1 @ 10' |
| ✓B6-O-B2 @ 22' | ✓B6-O-B1 @ 22' |
| ✓B6-O-B2 @ 32' | ✓B6-O-B1 @ 27' |
| ✓B6-O-B2 @ 40' | ✓B6-O-B1 @ 32' |
| ✓B6-F-21 | ✓B6-O-B1 @ 40' |
| ✓A1-V | |

October 29, 1984
Gregg & Associates, Inc.
Page 2

3) These samples were analyzed for one or more of the following: silver, sulfate, pH.

- ✓ Composite of Al-B-B1 @ 10', 22', 32' and 40'
- ✓ Composite of Al-B-B2 @ 15', 22', 32' and 40'
- Composite of Al-P-B1 @ 10', 22', 32' and 40'
- ✓ Al-B-MV1

✓ 4) This sample was analyzed for oil & grease (EPA Method 413.2) - Al-V (water) untreated.

✓ 5) This sample was analyzed for the CAM list of metals - A-IV (water) treated.

6) These samples were composited and analyzed for stoddard solvent.

✓ Composite of Al-Q-MV1 and MV2 15'.

Carolyn A. Sites

Carolyn A. Sites
Data Manager

Reviewed by

Mark King
Mark King
Laboratory Supervisor

CAS:mat

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

I.D. 01-001531

Petroleum Hydrocarbons
(EPA Method 418.1)Gregg & Associates
Lockheed ProjectReceived: 10-2-84
Analyzed: 10-10-84

| <u>Sample I.D.</u> | <u>mg/kg</u> | |
|--------------------|--------------|----------------------|
| B6-0-B1 @ 5' | <1.0 | |
| B6-0-B1 @ 10' | 15.5 | |
| B6-0-B1 @ 22' | <1.0 | |
| B6-0-B1 @ 27' | <1.0 | |
| B6-0-B1 @ 32' | <1.0 | |
| B6-0-B1 @ 40' | <1.0 | |
| B6-0-B2 @ 5' | 1.8 | |
| B6-0-B2 @ 10' | <1.0 | |
| B6-0-B2 @ 22' | <1.0 | |
| B6-0-B2 @ 32' | <1.0 | 80.7% Spike Recovery |
| B6-0-B2 @ 40' | <1.0 | |
| B6-F-21 (oil) | 89,500 | |
| A1-V (untreated) | 25,000 | |

Oil & Grease
(EPA Method 413.2)

A1-V (untreated) 30,000 mg/L

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Cregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 5' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Grepp & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 10' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|-----------------|---------------------------|-----------------|------------------------|
| <u>< 0.2</u> | Benzene | <u>< 0.4</u> | Toluene |
| <u>< 0.1</u> | Bromodichloromethane | <u>< 0.2</u> | 1,1,1-Trichloroethane |
| <u>< 0.7</u> | Bromoform | <u>< 0.1</u> | 1,1,2-Trichloroethane |
| <u>< 0.1</u> | Bromomethane | <u>< 0.3</u> | Trichloroethene |
| <u>< 0.1</u> | Carbon Tetrachloride | <u>ND</u> | Trichlorofluoromethane |
| <u>< 0.8</u> | Chlorobenzene | <u>< 0.2</u> | Vinyl Chloride |
| <u>< 0.8</u> | Chloroethane | | |
| <u>< 0.2</u> | 2-Chloroethylvinylether | | |
| <u>< 0.1</u> | Chloroform | | |
| <u>< 0.2</u> | Chloromethane | | |
| <u>< 0.1</u> | Dibromochloromethane | | |
| <u>< 0.4</u> | 1,2-Dichlorobenzene | | |
| <u>< 0.4</u> | 1,3-Dichlorobenzene | | |
| <u>< 0.6</u> | 1,4-Dichlorobenzene | | |
| <u>ND</u> | Dichlorodifluoromethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethane | | |
| <u>< 0.1</u> | 1,2-Dichloroethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethene | | |
| <u>< 0.1</u> | trans-1,2-Dichloroethene | | |
| <u>< 0.1</u> | 1,2-Dichloropropane | | |
| <u>< 0.1</u> | cis-1,3-Dichloropropene | | |
| <u>< 0.1</u> | trans-1,3-Dichloropropene | | |
| <u>< 0.1</u> | Ethyl Benzene | | |
| <u>< 0.5</u> | Methylene Chloride | | |
| <u>< 0.4</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< 0.4</u> | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 22' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.1 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & AssociatesDate Collected: 9-29-84Sample I.D.: B6-0-B1 27'Date Received by Lab: 10-2-84Sample Matrix: SoilDate Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | tetrachloroethene | | |

0840

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 32' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 40' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B1 40' Duplicate Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

I.D. 01-001531

Volatile Organic Analyses
(EPA 8010/8020)
Quality Control Summary

| | <u>Spike Recovery, %</u> <u>E6-0-B1 5'</u> |
|-----------------------|-----------------------------------------------|
| Chloroethane | 91.7 |
| 1,1-Dichloroethene | 100 |
| 1,1-Dichloroethane | 97.1 |
| Chloroform | 108 |
| 1,2-Dichloroethane | 96.9 |
| 1,1,1-Trichloroethane | 97.2 |
| Carbon Tetrachloride | 106 |
| 1,2-Dichloropropane | 93.7 |
| Trichloroethene | 107 |
| Chlorobenzene | 87.1 |
| Benzene | 93.9 |
| Toluene | 95.8 |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Clegg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B2 5' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| 3.3 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B2 10' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Grepp & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B2 22' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Greys & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B2 32' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 9-29-84
 Sample I.D.: B6-0-B2 40' Date Received by Lab: 10-2-84
 Sample Matrix: Soil Date Analyzed: 10-14-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |



Analytical Technologies, Inc.

Corporate Offices: 205 W. 20th Street, National City, CA 92101 (619) 441-4111

I.D.# 01-001572

December 6, 1984

RECEIVED DEC 11 1984

Gregg & Associates
18351 Beach Blvd, Suite L
Huntington Beach, CA 92647

Attention: Dean Gregg

RE: Lockheed Project; #84-106

On October 12, 1984 Analytical Technologies, Inc. received the eighth shipment of 18 soil samples collected from the Lockheed project site. These samples were analyzed for volatile organics, petroleum hydrocarbons, metals, pH and cyanide.

Described below is the disposition of each sample:

- 1) These samples were analyzed for volatile organics in accordance with EPA methods 8010/8020.

| | |
|----------------------------------|-------------------|
| Al-Background 10' | B1-Background 10' |
| Al-Background 20' | B1-Background 20' |
| Al-Background 30' | B1-Background 30' |
| Al-Background 40' | B1-Background 40' |
| Composite of B6-S-B1 10' and 16' | |
| Composite of B6-S-B1 30' and 40' | |
| Composite of B1-Z-B1 30' and 40' | |
| B1-Z-B1 10' | |
| B1-Z-B1 20' | |

- 2) These samples were analyzed for one or more of the following: petroleum hydrocarbons, pH, cyanide and the CAM list of metals

| | |
|------------------------------------------------|-------------------|
| Al-Background 10' | B1-Background 10' |
| Al-Background 20' | B1-Background 20' |
| Al-Background 30' | B1-Background 30' |
| Al-Background 40' | B1-Background 40' |
| B1-Z-B1 10' | |
| B1-Z-B1 20' | |
| Composite of B1-Z-B1 30' and 40' | |
| Composite of B1-F13-MV1 12' and B1-F13-MV2 12' | |

All Samples analyses were in accordance with EPA methods or equivalent. Attached are the test results if you have any questions, please call.

Carolyn A. Sites

Carolyn A. Sites
Data Manager

Reviewed by

Mark King
Mark King
Laboratory Supervisor

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & AssociatesDate Collected: 10/10/84Sample I.D.: B6-S-B1 10' & 16'Date Received by Lab: 10/12/84Sample Matrix: Soil compositeDate Analyzed: 11/19/84

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | 5.6 | Methyl Ethyl Ketone |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & AssociatesDate Collected: 10/10/84Sample I.D.: B6-S-B1 10' & 16' DDate Received by Lab: 10/12/84Sample Matrix: Soil compositeDate Analyzed: 11/19/84

Duplicate Analysis

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroeth |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroeth |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromet |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | 5.6 | Methyl Ethyl Ketone |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

November 8, 1984

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Dean Gregg

Re: Lockheed project; #84-106

On October 23, 1984 Analytical Technologies, Inc. received a ninth shipment containing forty-eight (48) soil samples, collected from the Lockheed project site. The samples were analyzed for cadmium, chromium, pH, petroleum hydrocarbons and volatile organics.

Described below is the disposition of each sample.

- 1) These samples were analyzed for volatile organics using GC/MS (EPA Method 624).

- ✓ Composite of B1-1 5', 10', 20', 30'
- ✓ Composite of B1-2 5', 10', 20', 30'
- ✓ Composite of B1-3 5', 10', 20', 30'
- ✓ Composite of B1-4 5', 10', 20', 30'
- ✓ Composite of B1-5 5', 20', 30'
- ✓ Composite of B1-6 5', 10', 20', 30'
- ✓ Composite of B1-7 5', 10', 20', 30'
- ✓ Composite of B1-8 5', 10', 20', 30'
- ✓ Composite of B1-9 5', 10', 20', 30'
- ✓ Composite of B6-T-B1 11', 19', 28', 35'

- 2) These samples were analyzed for soil pH, petroleum hydrocarbons (EPA 418.1) and cadmium and chromium using inductively coupled plasma.

| | |
|---------------------|---------------------|
| ✓ Composite of B1-1 | ✓ Composite of B1-6 |
| ✓ Composite of B1-2 | ✓ Composite of B1-7 |
| ✓ Composite of B1-3 | ✓ Composite of B1-8 |
| ✓ Composite of B1-4 | ✓ Composite of B1-9 |
| ✓ Composite of B1-5 | |

VOLATILE ORGANIC ANALYSIS (VOA)
DATA SUMMARYClient: Gregg & AssociatesSample I.D.: 1596 B6-T-B1 compositeSample Matrix: SoilDate Collected: 10-19-84Method No.: DIRECT SPARGEDate Received by Lab: 10-23-84Date Analyzed: 10-26-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|---------------------|
| < 12.5 | Bromomethane | < 11.0 | Benzene |
| < 12.5 | Chloromethane | < 15.0 | Chlorobenzene |
| < 5.5 | Bromodichloromethane | < 15.0 | Toluene |
| < 7.8 | Dibromochloromethane | < 18.0 | Ethylbenzene |
| < 7.0 | Methylene Chloride | < 12.5 | Acrolein |
| < 11.8 | Bromoform | < 12.5 | Acrylonitrile |
| < 4.0 | Chloroform | < 25.0 | Methyl Ethyl Ketone |
| < 7.0 | Carbon Tetrachloride | < 25.0 | Acetone |
| < 12.5 | Trichlorofluoromethane | | |
| < 12.5 | Chloroethane | | |
| < 7.0 | 1,1-Dichloroethane | | |
| < 7.0 | 1,2-Dichloroethane | | |
| < 9.5 | 1,1,1-Trichloroethane | | |
| < 12.5 | 1,1,2-Trichloroethane | | |
| < 17.3 | 1,1,2,2-Tetrachloroethane | | |
| < 12.5 | Vinyl Chloride | | |
| < 7.0 | 1,1-Dichloroethene | | |
| < 4.0 | Trans-1,2-Dichloroethene | | |
| < 4.8 | Trichloroethene | | |
| < 10.3 | Tetrachloroethene | | |
| < 12.5 | 2-Chloroethylvinylether | | |
| < 15.0 | 1,2-Dichloropropane | | |
| < 12.5 | CIS - 1,3-Dichloropropene | | |
| < 12.5 | Trans-1,3-Dichloropropene | | |



RECEIVED JAN 4 1985

December 14, 1984

Gregg and Associates
18351 Beach Blvd. Suite "L"
Huntington Beach, CA 92647

Project Name: CALAC

Project No.: 84-106

On November 6, 1984 Analytical Technologies, Inc. received twelve (12) soil samples for analyses. Volatile organics were analyzed using gas chromatography, in accordance with EPA Methods 8010 and 8020. Petroleum hydrocarbons were analyzed by taking an aliquot of soil, extracting it with freon, and analyzing the extract using infrared spectrophotometry, in accordance with EPA Method 418.1. California Assessment Manual (CAM) metals were determined by acid digesting an aliquot of soil, and analyzing the digest using inductively coupled plasma and atomic absorption graphite furnace, in accordance with the EPA 200 series methods. Cyanide, pH, and surfactants were analyzed by EPA Methods or equivalent.

Described below is the disposition of each sample.

- 1) These samples were composited and analyzed for volatile organics, CAM metals, pH, and cyanide.

| | |
|--------------|-----|
| B1 - A1 - B2 | 10' |
| B1 - A1 - B2 | 22' |
| B1 - A1 - B2 | 30' |
| B1 - A1 - B2 | 40' |

- 2) These samples were composited and analyzed for volatile organics, surfactants, and cyanide.

| | |
|--------------|-----|
| B1 - AH - B1 | 10' |
| B1 - AH - B1 | 15' |
| B1 - AH - B1 | 30' |
| B1 - AH - B1 | 40' |

- 3) These samples were analyzed individually for volatile organics and petroleum hydrocarbons.

| | |
|----------------|----------|
| B6 - F21 - MV1 | 6" (12') |
| B6 - F21 - MV2 | 6" (14') |

01-001652

Gregg & Associates

DATA SHEETSample

B1-A1-B2 Composite

B1-AH-B1 Composite

B6-F21-MV1

B6-F21-MV2

ParameterConcentration (mg/kg)

pH 9.01
Cyanide <0.2

Surfactants <0.5
Cyanide <0.2

Petroleum Hydrocarbons 37

Petroleum Hydrocarbons 109



I.D. 01-001667

January 3, 1985

Gregg and Associates
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Ed Baquerizo

Project: CALAC

Project Number: 84-106

On November 9, 1984 Analytical Technologies, Inc. received twenty-one (21) soil samples for analyses. Volatile organics were analyzed using gas chromatography in accordance with EPA Methods 8010 and 8020. Petroleum hydrocarbons were analyzed by extracting soil aliquots with freon, then, analyzing the freon extract by infrared spectrophotometry, in accordance with EPA Method 418.1. California Assessment Manual (CAM) metals were analyzed by acid digesting soil aliquots, and analyzing the digests by inductively coupled plasma and atomic absorption graphite furnace, in accordance with the EPA 200 series methods. Fluoride and nitrate were analyzed using ion chromatography; pH was analyzed by EPA Method 9040.

Described below is the disposition of each sample.

- 1) These samples were composited and analyzed for volatile organics and petroleum hydrocarbons.

B6-S-SL1 0-5'

B6-S-SL1 0-9'

- 2) These samples were composited and analyzed for volatile organics and chromium. They were analyzed individually for pH, fluoride, and nitrate.

A1-13-SL1 0-5'

A1-13-SL1 7'-10'

- 3) These samples were composited and analyzed for volatile organics and chromium. They were analyzed individually for pH, fluoride, and nitrate.

A1-12-SL1 5'

A1-12-SL1 0-11'

4) These samples were analyzed individually for volatile organics.

A-1-J Ring Sample 5'
A-1-J Ring Sample 10'
A-1-J Ring Sample 20'
A-1-J Ring Sample 30'
* A-1-J Ring Sample 40'
B6-U-B1 6" Ring Sample 5'
B6-U-B1 6" Ring Sample 10'
B6-U-B1 6" Ring Sample 20'
B6-U-B1 6" Ring Sample 30'
B6-U-B1 6" Ring Sample 40'

5) These samples were composited and analyzed for CAM metals.

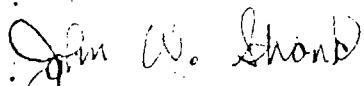
B6-U-B1 6" Ring Sample 10'
B6-U-B1 6" Ring Sample 20'
B6-U-B1 6" Ring Sample 30'
B6-U-B1 6" Ring Sample 40'

6) These samples were analyzed individually for volatile organics, CAM Metals, and pH.


B1-ZY-B1 6" Ring Sample 5'
B1-ZY-B1 6" Ring Sample 12'
B1-ZY-B1 6" Ring Sample 17'
B1-ZY-B1 6" Ring Sample 30'
B1-ZY-B1 Aug. Sample 38'

The volatile organics were analyzed individually, and the results composited mathematically. The results are tentative, a report containing confirmation of the results will follow.

Attached are the test results.


John W. Strand
Support Services Manager

Reviewed by


Mark King
Laboratory Manager

JWS:mat

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

* Sample A-1-J Ring Sample 40' was not analyzed successfully by direct sparge technique due to an unidentified interference. The sample is being re-analyzed by methanol extraction, data to follow.

DATA SUMMARY
OF CAM LISTED METALS

Client: Gregg & Associates Date Received: 11-9-84
Sample I.D.: B6-U-B1 Composite Date Analyzed: 11-15 thru 12-10-84
Sample Matrix: Soil Concentration: milligrams per kilogram

(Circle One)
mg/L or mg/kg

| | |
|----------------|------------------------|
| <u>2.5</u> | Antimony |
| <u>16.1</u> | Arsenic |
| <u>53.1</u> | Barium |
| <u><1.0</u> | Beryllium |
| <u><0.5</u> | Cadmium |
| <u>7.9</u> | Chromium (total) |
| <u><0.5</u> | *Chromium (hexavalent) |
| <u>4.8</u> | Cobalt |
| <u>12.9</u> | Copper |
| <u>4.5</u> | Lead |
| <u>0.278</u> | Mercury |
| <u>8.7</u> | Molybdenum |
| <u>4.5</u> | Nickel |
| <u><2.5</u> | Selenium |
| <u><2.5</u> | Silver |
| <u><2.5</u> | Thallium |
| <u>17.2</u> | Vanadium |
| <u>28.7</u> | Zinc |

*Hexavalent chromium is tested only when the total chromium value exceeds threshold limits.

Gregg & Associates

I.D. 01-001667

DATA SHEET

| <u>Sample</u> | <u>Parameter</u> | <u>Concentration (mg/kg)</u> |
|--------------------------------|-----------------------|------------------------------|
| B6-S-SL1 Composite | Petroleum Hydrocarbon | 149 |
| A1-13-SL1 Composite | Chromium | 154 |
| A1-12-SL1 Composite | Chromium | 134 |
| A1-13-SL1 0-5' Jar Sample | pH (units) | 10.35 |
| | Nitrate | 11.1 |
| | Fluoride | 3.3 |
| A1-13-SL1 7'-10' Jar Sample | pH (units) | 7.78 |
| | Nitrate | 6.2 |
| | Fluoride | 18.6 |
| A1-12-SL1 5' Jar Sample | pH (units) | 7.56 |
| | Nitrate | 24.9 |
| | Fluoride | 20.9 |
| A1-12-SL1 0-11' Jar Sample | pH (units) | 9.53 |
| | Nitrate | 11.6 |
| | Fluoride | 9.5 |

01-001667 (1 & 2)

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-17-84
 Sample I.D.: B6-S-SL1 Composite Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| 8.2 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| 21.2 | Tetrachloroethene | | |

ND = Not Detected, limit of
 detection for this compound has
 not been fully evaluated.

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-17-84
 Sample I.D.: E6-S-SL1 0-5' Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.2 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| 16.4 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| 22.9 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Greco & Associates Date Collected: 11-17-84
Sample I.D.: B6-S-SL1 0-9' Date Received by Lab: 11-9-84
Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| 19.6 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-7-84
 Sample I.D.: B6-U-E1 5' Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | 4.3 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | 2.9 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| 66.3 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| 661 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-7-84
Sample I.D.: B6-U-B1 10' Date Received by Lab: 11-9-84
Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

01-G01667-14

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Grega & Associates Date Collected: 11-7-84
 Sample I.D.: B6-U-B1 20' Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| 11.3 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-7-84
 Sample I.D.: B6-U-B1 30' Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

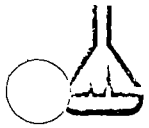
ND = Not Detected, limit of
 detection for this
 compound has not been
 fully evaluated.

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 11-7-84
 Sample I.D.: B6-U-B1 40' Date Received by Lab: 11-9-84
 Sample Matrix: Soil Date Analyzed: 12-10-84

| <u>ug/kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| 14.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.



Analytical Technologies, Inc.

Corporate Offices: 225 W. 30th Street National City, CA 92050 619 477-4173

I.D. 01-001695

January 8, 1985

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Dean Gregg

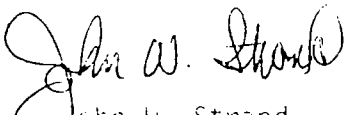
As requested via telephone on November 15, 1984 seven (7) samples were removed from storage and tested for additional parameters. These samples were identified as:

B6-Q-B1 at 23' & 40'
B6-N-B1 at 14' - 15'
B6-R-B1 at 20' & 30'
B6-K-B1 at 39' - 40' & 14' - 15'

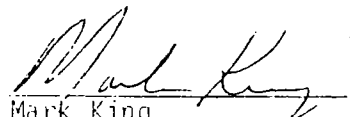
Samples B6-Q-B1 23' & 40' and B6-N-B1 14' - 15' were analyzed for volatile organics in accordance with EPA method 8010/8020. Samples B6-R-B1 20' and B6-R-B1 30' were analyzed for petroleum hydrocarbons (EPA method 418.1). Samples B6-K-B1 14' - 15' and B6-K-B1 39' - 40' were CAM extracted and soluble aluminum was determined on the extracts.

Attached are the test results.

ML:mat


John W. Strand
Support Services Manager

Reviewed by


Mark King
Laboratory Manager

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

I.D. 01-001695

DATA SUMMARY

Gregg & Associates
Lockheed project

Received: 11-15-84
Analyzed: 12-4 to 7-84

Petroleum Hydrocarbons, mg/kg

| | |
|-----------------------|---|
| B6-R-B1 20' | 6 |
| B6-R-B1 30' | 4 |
| B6-R-B1 30' Duplicate | 2 |

Aluminum-soluble (STLC), mg/L

| | |
|----------------|--------|
| B6-K-B1 14-15' | 32.7 ✓ |
| B6-K-B1 39-40' | 28.0 ✓ |

0840

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: _____
 Sample I.D.: B6-Q-B1 23' Date Received by Lab: 11-15-84
 Sample Matrix: Soil Date Analyzed: 12-29-84

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

0840

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: _____
 Sample I.D.: B6-Q-B1 40' Date Received by Lab: 11-15-84
 Sample Matrix: Soil Date Analyzed: 12-29-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates

Date Collected: _____

Sample I.D.: B6-N-B1 14'-15'Date Received by Lab: 11-15-84Sample Matrix: SoilDate Analyzed: 12-29-84

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

ND = Not Detected, limit of detection for this compound has not been fully evaluated.



I.D. 01-001746

January 10, 1985

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Project: CALAC

Number: 84106

On December 3, 1984 Analytical Technologies, Inc. received twenty-six (26) liquid samples (water, water and oil, and oil) and four (4) soil samples for analyses. Volatile organic analyses was requested, however the samples were improperly sampled. Ed Baquerizo was contacted, and the samples were resubmitted on December 13, 1984. Volatile organic analyses results are reported in Analytical Technologies, Inc. report number 01-001778.

Oil and grease were analyzed by extracting aliquots of sample with freon, and analyzing the extract using infrared spectrophotometry, in accordance with EPA Method 413.2. For the analyses of California Assessment Manual (CAM) metals, some of the samples required acid digestion before analyses. Sample B1-AI was oil, and was digested with nitric acid, in accordance with EPA Method 3030. Samples B1-ZM, B1-ZN, B1-ZY, B1-AC, B1-AL, and B1-AU were water samples which contained a large amount of solid material. They were digested under high temperature with sulfuric acid. As a consequence of digestion, these samples have a higher limits of detection than the undigested samples. The remainder of the samples were analyzed directly. Analyses of the digests and waters were done using inductively coupled plasma and atomic absorption graphite furnace, in accordance with the EPA 200 series methods. EPA Method 150.1 was used for the analyses of pH.

Described below is the disposition of each sample.

1) These samples were analyzed individually for oil and grease.

B1-AA
B1-H
B1-I
B1-ZY
B1-AE
B1-AH
B1-AL

January 10, 1985
Page 2
Gregg & Associates, Inc.

B1-AU
B1-J
MM 2 5'
MM 2 8'
B6-MM1 5'
B6-MM1 8'

2) These samples were analyzed individually for pH.

B1-ZM
B1-ZN
B1-ZY
B1-AC
B1-AI
B1-AJ
B1-AL
B1-AN
B1-AP

3) These samples were analyzed individually for CAM metals.

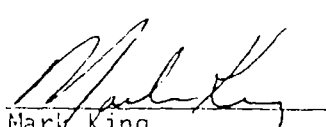
B1-ZM
B1-ZN
B1-ZY
B1-AC
B1-AI
B1-AJ
B1-AL
B1-AU
B1-AN
B1-AP

Attached are the test results.

ML:mat

John W. Strand
Support Services Manager

Reviewed by


Mark King
Laboratory Manager

• Attachments

Gregg & Associates

I.D. 01-001746

| <u>Sample</u> | <u>Oil & Grease</u> |
|---------------|-------------------------|
| B1-AA | ~ 50% oil ~50% water |
| B1-H | 896 mg/L |
| B1-I | ~ 50% oil ~50% water |
| B1-ZY | 41.5 mg/L |
| B1-AE | 2330 mg/L |
| B1-AH | 1.0 |
| B1-AL | 10.2 mg/L |
| B1-AU | 254 mg/L |
| B1-J | ≥ 99% oil |
| MM 2 5' | 119 mg/kg |
| MM 2 8' | 993 mg/kg |
| B6MM 1 8' | 2213 mg/kg |
| B6MM 1 5' | 462 mg/kg |

| <u>Sample</u> | <u>pH (Units)</u> |
|---------------|----------------------------|
| B1-ZM | 7.07 |
| B1-ZN | 1.12 |
| B1-ZY | 8.09 |
| B1-AC | 8.35 |
| B1-AI | 7.57 ~ 50% water ~ 50% oil |
| B1-AJ | pH on water phase |
| B1-AL | 1.53 |
| B1-AN | 7.69 |
| B1-AP | 7.25 |
| | 7.45 |



Analytical Technologies, Inc.

Corporate Offices: 225 W. 30th Street National City, CA 92050 619 477-4173

I.D. 01-001754

January 8, 1985

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Ed Baquerizo

Project: CALAC

Number: 84106

On December 5, 1984 Analytical Technologies, Inc. received thirteen (13) soil samples and one (1) water sample for analyses. Petroleum hydrocarbons were analyzed by extracting an aliquot of sample with freon, and analyzing the extract using infrared spectrophotometry, in accordance with EPA method 418.1. Volatile organics were analyzed using gas chromatographs equipped with Hall and photo ionization detector, in accordance with EPA methods 8010 and 8020.

Analysis of the water sample, B6-Q for volatile organics was not possible due to improper sample container.

ML:mat

John W. Strand
Support Services Manager

Reviewed by

Mark King
Laboratory Manager

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

Gregg & Associates

I.D. 01-001754

PETROLEUM HYDROCARBON DATA SHEET

| <u>Soil Sample</u> | | <u>Petroleum Hydrocarbons, mg/kg*</u> |
|--------------------|-----|---------------------------------------|
| B6-82-T1 | 5' | 5.9 |
| B6-82-T1 | 10' | <1.0 |
| B6-82-T1 | 20' | <1.0 |
| B6-82-T1 | 30' | 26.8 |
| B6-82-T1 | 40' | 3.7 |
| B6-82-T1 | 65' | 11.9 |
| B6-82-T2 | 5' | 5.5 |
| B6-82-T2 | 10' | 17.9 |
| B6-82-T2 | 20' | 6.3 |
| B6-82-T2 | 30' | <1.0 |
| B6-82-T2 | 45' | 3.0 |
| B6-82-T2 | 60' | 2.3 |
| B6-82-T2 | 80' | <1.0 |

Water Sample

B6-Q

28% Water
72% Oil

*(mg/kg) is milligrams per kilogram

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & AssociatesDate Collected: 12-4-84Sample I.D.: B6-82-T1 5'Date Received by Lab: 12-5-84Sample Matrix: SoilDate Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.3 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

0840

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 10' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 20' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 1 30' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-B2-T1 40' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: BG-82-T1 65' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T2 5' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.5 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 10' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 20'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.3 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 30'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 45' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 45' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.5 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 60' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|-----------------|---------------------------|-----------------|------------------------|
| <u>< 0.2</u> | Benzene | <u>< 0.4</u> | Toluene |
| <u>< 0.1</u> | Bromodichloromethane | <u>< 0.2</u> | 1,1,1-Trichloroethane |
| <u>< 0.7</u> | Bromoform | <u>< 0.1</u> | 1,1,2-Trichloroethane |
| <u>< 0.1</u> | Bromomethane | <u>< 0.3</u> | Trichloroethene |
| <u>< 0.1</u> | Carbon Tetrachloride | <u>ND</u> | Trichlorofluoromethane |
| <u>< 0.8</u> | Chlorobenzene | <u>< 0.2</u> | Vinyl Chloride |
| <u>< 0.8</u> | Chloroethane | | |
| <u>< 0.2</u> | 2-Chloroethylvinylether | | |
| <u>< 0.1</u> | Chloroform | | |
| <u>< 0.2</u> | Chloromethane | | |
| <u>< 0.1</u> | Dibromochloromethane | | |
| <u>< 0.4</u> | 1,2-Dichlorobenzene | | |
| <u>< 0.4</u> | 1,3-Dichlorobenzene | | |
| <u>< 0.6</u> | 1,4-Dichlorobenzene | | |
| <u>ND</u> | Dichlorodifluoromethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethane | | |
| <u>< 0.1</u> | 1,2-Dichloroethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethene | | |
| <u>< 0.1</u> | trans-1,2-Dichloroethene | | |
| <u>< 0.1</u> | 1,2-Dichloropropane | | |
| <u>< 0.1</u> | cis-1,3-Dichloropropene | | |
| <u>< 0.1</u> | trans-1,3-Dichloropropene | | |
| <u>< 0.1</u> | Ethyl Benzene | | |
| <u>< 0.5</u> | Methylene Chloride | | |
| <u>< 0.4</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< 0.4</u> | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 80'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

TRUESDAIL LABORATORIES, INC.



CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRUELABS

CLIENT Gregg & Associates
18351 Beach Boulevard
Huntington Beach, California 92647
ATTENTION: Andrew Gregg
SAMPLE Fifteen Water Samples

DATE September 10, 1984
RECEIVED August 20, 1984
LABORATORY NO. 01364

INVESTIGATION As Indicated

RESULTS

| Parameter | B-6-B | B-6-E | B-6-L | B-6-M | B-6-N | B-6-P | B-6-Q |
|----------------------------------|---------|---------|-------|---------|---------|--------|-------|
| pH, units | 2.97 | 9.19 | 8.13 | 7.0 | 6.80 | 6.86 | 6.34 |
| Arsenic (As), ppm | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | 0.002 | - |
| Barium (Ba), ppm | 0.45 | 0.41 | - | 0.1 | 0.1 | 0.1 | - |
| Beryllium (Be), ppm | <0.003 | <0.003 | - | <0.003 | <0.003 | <0.003 | - |
| Cadmium (Cd), ppm | 0.05 | 0.01 | - | <0.003 | 0.03 | 0.01 | - |
| Total Chromium (Cr), ppm | 0.01 | 0.40 | - | <0.01 | 0.08 | 0.07 | - |
| Chromium VI (Cr), ppm | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - |
| Copper (Cu), ppm | 0.95 | 0.02 | - | <0.01 | 0.17 | 0.57 | - |
| Lead (Pb), ppm | 0.09 | <0.03 | - | <0.03 | 0.04 | 0.32 | - |
| Mercury (Hg), ppm | 0.0003 | 0.0004 | - | 0.0003 | 0.0006 | 0.0006 | - |
| Nickel (Ni), ppm | 0.66 | 0.03 | - | 0.01 | 0.02 | 0.60 | - |
| Silver (Ag), ppm | 0.028 | <0.008 | - | <0.008 | <0.008 | <0.008 | - |
| Thallium (Tl) | 0.13 | <0.05 | - | <0.05 | <0.05 | <0.05 | - |
| Vanadium (V), ppm | <0.07 | <0.07 | - | <0.07 | <0.07 | <0.07 | - |
| Selenium (Se), ppm | 0.0004 | 0.0004 | - | 0.0013 | 0.0022 | 0.0003 | - |
| Antimony (Sb), ppm | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | - |
| Zinc (Zn), ppm | 6.54 | 0.35 | - | 1.54 | 6.21 | 8.05 | - |
| Molybdenum (Mo), ppm | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | - |
| Cobalt (Co), ppm | 0.12 | 0.01 | - | 0.01 | 0.04 | 0.02 | - |
| Sulfate, ppm | - | - | <0.01 | - | - | - | - |
| Ethanol | - | trace | - | trace | 20 | - | - |
| Acetone | - | 4.3 | - | trace | 98 | - | 2.7 |
| Isopropanol | - | trace | - | <0.4 | 130 | - | 2.4 |
| Ethyl Ethyl Ketone | - | 3.6 | - | <0.4 | 190 | - | 0.6 |
| Ethyl Isobutyl Ketone | - | <0.4 | - | 7 | 490 | - | <0.1 |
| Isobutyl Acetate | - | <0.4 | - | - | 11 | - | 0.1 |
| Isobutyl Alcohol | - | <0.4 | - | - | 170 | - | - |
| Polycyclic Aromatic Hydrocarbons | - | - | <1 | - | - | - | 4,400 |

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from these Laboratories.

Sample B-6-R

An infrared spectrum of the sample indicates that the oil is a long chain aliphatic compound such as mineral oil.

Sample B-6-O

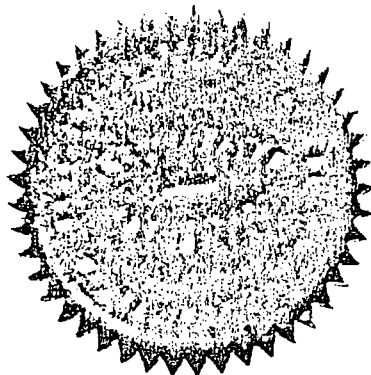
The initial infrared spectrum indicates that the sample was predominantly gasoline. API Gravity at 60° F was found to be 50.9 while D-86 Distillation indicated that diesel fuel was also present at about the 20% level. B-6-O is therefore approximately 80% gasoline and 20% diesel oil. Residue was 1.7%.

Respectfully submitted,

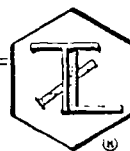
TRUESDAIL LABORATORIES, INC.



Richard D. Reid
Chief Water Chemist



TRUESDAIL LABORATORIES, INC.

CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRU ELABSCLIENT Gregg & Associates
18351 Beach Boulevard, Suite L
Huntington Beach, California 92647
SAMPLE Attention: Dean Gregg

DATE September 18, 1984

RECEIVED September 12, 1984

LABORATORY NO. 01364

B-6-O/B-6-B

INVESTIGATION

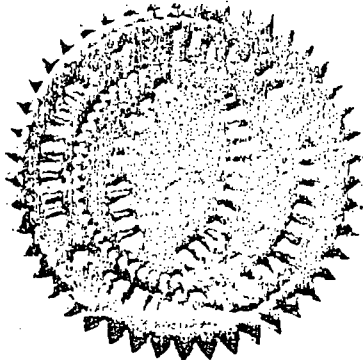
Solvent Analysis/Sulfate Determination

RESULTS

The oil sample was extracted with H₂O, and then was injected onto a SP-1000 packed gas chromatography column and peaks were eluted by temperature program from 50 to 210 C.

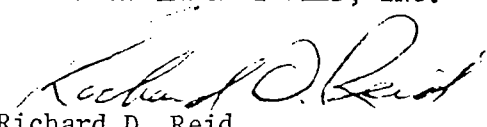
The major constituents of water solubles are reported as follows:

| Constituents | Parts Per Million | |
|------------------------|-------------------|-------|
| | B-6-O | B-6-B |
| Ethanol | 1.0 | -- |
| Isopropyl alcohol | 0.51 | -- |
| Methyl Ethyl Ketone | 2.4 | -- |
| Isobutyl Alcohol | 0.90 | -- |
| Ethyl Acetate | 0.61 | -- |
| n-Butyl alcohol | 2.3 | -- |
| Cyclohexanone | 5.3 | -- |
| Methyl isobutyl ketone | 2.9 | -- |
| 2-Hexanone | 2.7 | -- |
| Cellulose acetate | 1.0 | -- |
| Sulfate | -- | 170 |



Respectfully submitted,

TRUESDAIL LABORATORIES, INC.


Richard D. Reid
Chief Water Chemist

TRUESDAIL LABORATORIES, INC.



CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRU ELABS

CLIENT Gregg & Associates
18351 Beach Boulevard
Huntington Beach, California 92647
ATTENTION: Dean Gregg

DATE October 3, 1984

RECEIVED September 17, 1984

SAMPLE

LABORATORY NO. 01859

Soils (Lockheed)
Project No. 84-106-002

INVESTIGATION As Requested

RESULTS

| Parameter | Station B-6-F-9 (B1), ppm | | | |
|--------------------------------|---------------------------|--------|--------|--------|
| | 5 Ft. | 10 Ft. | 22 Ft. | 40 Ft. |
| Total Recoverable Hydrocarbons | < 2 | 4 | < 2 | 2.2 |

| Station B-6-L(B2), Composite, ppm | |
|-----------------------------------|-------------|
| Total Recoverable Hydrocarbons | 7.9 |
| Common Solvents | |
| 2-Hexanone | 10. |
| Carbitol | < 0.2 |
| Butyl Acetate | Trace < 10. |
| Acetone | < 1. |
| Methyl Isobutyl Ketone | < 1. |
| Methyl Ethyl Ketone | < 0.1 |
| Isopropyl Alcohol | < 1. |
| Ethyl Acetate | < 0.3 |
| Cellusolve Acetate | < 2 |

TRUESDAIL LABORATORIES, INC.

p. 2

0840

B6-F-12 (B1), Composite, ppmParameter

Total Recoverable Hydrocarbons

18

B-6-N (MV1) 12'-13', ppm

Common Solvents

| | |
|------------------------|-------|
| Carbitol | 5.6 |
| 2-Hexanone | < 5 |
| Butyl Acetate | 20. |
| Acetone | < 1. |
| Methyl Isobutyl Ketone | < 1. |
| Methyl Ethyl Ketone | < 0.1 |
| Isopropyl Alcohol | < 1. |
| Ethyl Acetate | < 0.3 |
| Cellusolve Acetate | < 2. |

B-6-F-20 (B1), Composite, ppm

Total Recoverable Hydrocarbons

14.

B-6-F-10 (B1)

| | <u>12'-13'</u> | <u>22'</u> | <u>32'</u> | <u>40'</u> |
|--------------------------------|----------------|------------|------------|------------|
| Total Recoverable Hydrocarbons | < 2 | 3.7 | 2.3 | 4.1 |

TRUESDAIL LABORATORIES, INC.

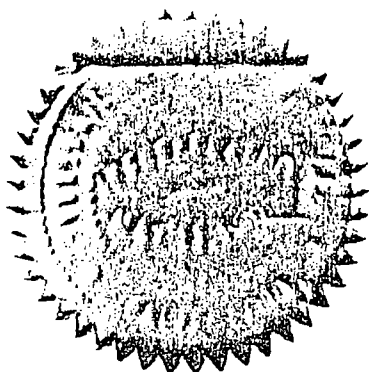
p. 3

| <u>Parameter</u> | <u>B-6-B (MV1), ppm</u> | | | | | |
|------------------------|-------------------------|------------|----------------|----------------|------------|------------|
| | <u>5'-6'</u> | <u>12'</u> | <u>17'-18'</u> | <u>22'-23'</u> | <u>30'</u> | <u>40'</u> |
| pH, units | 7.1 | 7.6 | 8.1 | 8.7 | 7.2 | 7.6 |
| Common Solvents | | | | | | |
| Carbitol | - | 34. | - | - | - | - |
| 2-Hexanone | - | < 5. | - | - | - | - |
| Butyl Acetate | - | 15. | - | - | - | - |
| Acetone | - | < 1. | - | - | - | - |
| Methyl Isobutyl Ketone | - | < 1. | - | - | - | - |
| Methyl Ethyl Ketone | - | < 1. | - | - | - | - |
| Isopropyl Alcohol | - | < 1. | - | - | - | - |
| Ethyl Acetate | - | < 0.3 | - | - | - | - |
| Cellusolve Acetate | - | < 2 | - | - | - | - |

Composite Sulfate

8.1

It was impossible to determine whether the hydrocarbons present were gasoline, diesel or kerosene since the levels were found to be very low.



Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Richard D. Reid
Chief Water Chemist

TRUESDAIL LABORATORIES, INC.



CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRU ELABS

CLIENT Gregg & Associates
18351 Beach Boulevard, Suite L
Huntington Beach, California 92647
Attention: Dean Gregg

DATE December 19, 1984
RECEIVED October 5, 1984
LABORATORY NO. 01942

SAMPLE Soil Samples for Lockheed 84-106

INVESTIGATION As Requested

RESULTS

Milligrams per Kilogram

Station Al-F-B1, ppm

| Parameter | 4' | 10' | 22' | 33' | 40' |
|--------------------------------|--------|--------|--------|--------|--------|
| Total Recoverable Hydrocarbons | 19 | 380 | <2 | <2 | 9.4 |
| Solvents | | | | | |
| Acetone | ND<0.2 | 1.1 | 8.2 | TR<0.2 | 6.9 |
| Methyl Ethyl Ketone | ND<0.6 | 1.3 | ND<0.6 | ND<0.6 | 2.3 |
| Ethyl Acetate | ND<0.3 | ND<0.3 | ND<0.3 | 7.9 | ND 0.3 |
| n-Butyl Alcohol | ND<0.8 | 4.0 | 4.3 | 3.9 | 5.4 |
| Methyl Isobutyl Ketone | 1.4 | ND<0.3 | ND<0.3 | ND<0.3 | ND<0.3 |
| Isobutyl Acetate | 1.1 | ND<0.3 | ND<0.3 | ND<0.3 | ND<0.3 |

Isopropyl Alcohol, Isobutyl Alcohol, Cyclohexanone, and other solvents were found to be less than 0.5 ppm.

TRUESDAIL LABORATORIES, INC.

p. 2

Milligrams per Kilogram
A-1-F-B2

| <u>Parameter</u> | <u>10'</u> | <u>23'</u> | <u>32'</u> | <u>40'</u> |
|--------------------------------|------------|------------|------------|------------|
| Total Recoverable Hydrocarbons | <2 | <2 | <2 | <2 |
| Solvents | | | | |
| Acetone | 6.9 | 5.1 | 0.5 | 1.0 |
| Isopropyl Alcohol | 5.4 | ND<0.5 | 6.0 | 2.4 |
| Methyl Ethyl Ketone | ND<0.6 | 1.6 | ND<0.6 | 0.8 |
| Ethyl Acetate | ND<0.3 | ND<0.3 | 3.7 | ND<0.3 |
| n-Butyl Alcohol | 5.1 | 10. | 5.4 | 2.4 |

Isobutyl Alcohol, Cyclohexanone, MIBK, Isobutyl Acetate and others were found to be 0.6 ppm

| <u>Parameter</u> | <u>Al-E-MV1, (12 ft.)</u> |
|---------------------|---------------------------|
| Total Chromium, ppm | 4.1 |
| pH, units | 7.4 |
| Total Cyanide, ppm | 0.05 |
| Cadmium, ppm | 0.20 |

Milligrams per Kilogram

| <u>Parameter</u> | <u>Al-D-MV1, (12 ft.)</u> | <u>Al-D-MV2, (12 ft.)</u> |
|----------------------------|---------------------------|---------------------------|
| Water Soluble Hydrocarbons | <2 | <2 |

| <u>Parameter</u> | <u>B6-F19-B1 Composite</u> | <u>10'</u> | <u>15'</u> | <u>20'</u> | <u>30'</u> | <u>40'</u> |
|----------------------------------------|--------------------------------|------------|------------|------------|------------|------------|
| Total Soluble Hydrocarbons (Diesel) | <2. | <2. | <2. | 3. | <2. | <2. |
| Solvents | | | | | | |
| Acetone | --- | --- | 4.4 | --- | --- | --- |
| Isopropyl Alcohol | | | 2.3 | | | |
| Methyl Ethyl Ketone | | | 1.3 | | | |
| n-Butyl Alcohol | | | 5.8 | | | |

Isobutyl Alcohol, Ethyl Acetate, Cyclohexanone, MIBK, Isobutyl Acetate and others are 0.3 mg/kg.

B6-F11-B1
Composite

| <u>Parameter</u> | |
|---------------------------------------|-----|
| Total Recoverable Hydrocarbons, mg/kg | 23. |

Al-F Liquid

Parameter

Milligrams per Kilogram

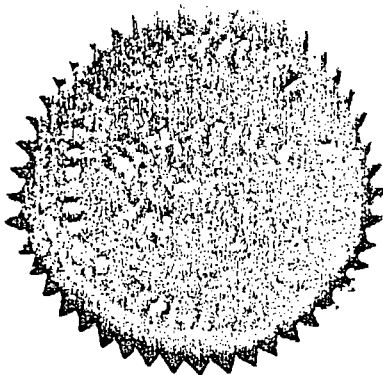
| | |
|------------------------|------|
| Acetone | 1.2 |
| Ethyl Ethyl Ketone | 0.6 |
| Methyl Isobutyl Ketone | 3.8 |
| Total Hydrocarbons | 100% |

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.



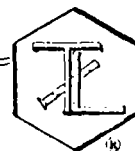
Richard D. Reid
Chief Water Chemist



REPORT

0840

TRUESDAIL LABORATORIES, INC.



CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRUELABS

CLIENT Gregg & Associates
18351 Beach Boulevard, Suite L
Huntington Beach, California 92647
Attention: Dean Gregg

DATE October 22, 1984

RECEIVED October 10, 198

SAMPLE Soils

LABORATORY NO. 01960

Project No. 84-106 (Lockheed)

INVESTIGATION As Requested

RESULTS

Al-T-B2 Station

| <u>Parameter</u> | <u>10' - 14' Composite</u> | <u>22' - 30' Composite</u> |
|------------------|----------------------------|----------------------------|
| Antimony (Sb) | < 2 | < 2 |
| Arsenic (As) | 0.10 | 0.002 |
| Barium (Ba) | 51 | 48. |
| Beryllium (Be) | < 0.1 | < 0.1 |
| Cadmium (Cd) | 0.16 | 0.22 |
| Chromium (Cr) | 1.3 | 1.2 |
| Cobalt (Co) | 2.1 | 3.0 |
| Copper (Cu) | 3.8 | 4.6 |
| Lead (Pb) | 1.4 | 1.4 |
| Mercury (Hg) | 0.009 | 0.010 |
| Molybdenum (Mo) | < 3 | < 3 |
| Nickel (Ni) | 2.3 | 3.3 |
| Selenium (Se) | 0.04 | 0.12 |
| Silver (Ag) | < 0.1 | 0.4 |
| Thallium (Tl) | < 1 | < 1 |

TRUESDAIL LABORATORIES, INC.

p. 2

0840

| <u>Parameter</u> | Station A1-T-B2 (Con't.) | |
|--------------------------------|----------------------------|----------------------------------------------|
| | <u>10' - 14' Composite</u> | <u>22' - 30' Composite</u> |
| Vanadium (V) | < 10 | < 10 |
| Zinc (Zn) | 25.5 | 12.1 |
| Solvents | | |
| Acetone | 1.4 | Trace < 0.8 |
| Isopropyl Alcohol | 2.6 | Trace < 0.4 |
| Methyl Ethyl Ketone | N. D. < 0.3 | 0.8 |
| Ethyl Acetate | 5.5 | N. D. < 0.5 |
| n-Butyl Alcohol | 1.3 | 1.1 |
| Cyclohexanone | 0.7 | N. D. < 0.4 |
| Methyl Isobutyl Ketone | Trace < 0.4 | Trace < 0.4 |
| | B6-F33-MV1/MV2 | Station B6-F13-B1 |
| | <u>Composite</u> | <u>8'6"</u> <u>15'</u> <u>22'</u> <u>30'</u> |
| Total Recoverable Hydrocarbons | 17 | 170 82 350 490 |

TRUESDAIL LABORATORIES, INC.

0840

p. 3

Al-T-B1 Station

| <u>Parameter</u> | <u>9'</u> | <u>14'</u> | <u>22'</u> |
|------------------|-----------|------------|------------|
| Antimony (Sb) | < 2 | < 2 | < 2 |
| Arsenic (As) | 0.02 | 0.02 | 0.01 |
| Barium (Ba) | 83 | 51 | 46 |
| Beryllium (Be) | < 0.1 | < 0.1 | < 0.1 |
| Cadmium (Cd) | 0.69 | 0.22 | 0.19 |
| Chromium (Cr) | 112 | 15. | 5.3 |
| Cobalt (Co) | 3.6 | 3.0 | 2.5 |
| Copper (Cu) | 7.7 | 5.5 | 4.3 |
| Lead (Pb) | 24. | 4.6 | < 1. |
| Mercury (Hg) | 0.011 | 0.011 | 0.009 |
| Molybdenum (Mo) | < 3 | < 3 | < 3 |
| Nickel (Ni) | 4.8 | 4.3 | 2.5 |
| Selenium (Se) | 0.12 | 0.02 | 0.02 |
| Silver (Ag) | 0.5 | 0.1 | 0.1. |
| Thallium (Tl) | 3.9 | 2. | 2.9 |
| Vanadium (V) | < 10 | 50 | < 10 |
| Zinc (Zn) | 154 | 33.9 | 14.0 |

TRUESDAIL LABORATORIES, INC.

0840

p. 4

Al-T-B1 Station

| <u>Parameter</u> | <u>9'</u> | <u>14'</u> | <u>22'</u> |
|------------------------|-------------|-------------|-------------|
| Solvents | | | |
| Isopropyl Alcohol | N.D. < 0.4 | 3.8 | 2.5 |
| Methyl Ethyl Ketone | 0.6 | 0.8 | 3.4 |
| Ethyl Acetate | 3.7 | N.D. < 0.5 | N.D. < 0.5 |
| n-Butyl Alcohol | N.D. < 0.3 | Trace < 0.3 | N.D. < 0.3 |
| Cyclohexanone | N.D. < 0.4 | N.D. < 0.4 | Trace < 0.4 |
| Methyl Isobutyl Ketone | Trace < 0.4 | N.D. < 0.4 | Trace < 0.4 |
| n-Butyl Acetate | 0.4 | Trace < 0.4 | N.D. < 0.4 |

Al-F13-MV1, 12'

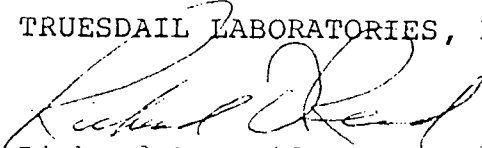
ParameterMilligrams per Kilogram

Total Recoverable Hydrocarbons

41

Respectfully submitted,

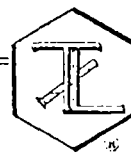
TRUESDAIL LABORATORIES, INC.


Richard D. Reid
Chief Water Chemist

REPORT

TRUESDAIL LABORATORIES, INC.

0840

CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH - DEVELOPMENT - TESTING14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRUELABSCLIENT Gregg & Associates
18351 Beach Blvd., Suite L
Huntington Beach, CA
Attention: Dean Gregg
SAMPLE Soils & Liquids from Lockheed

DATE December 19, 1984

RECEIVED Various dates

LABORATORY NO. 02275

INVESTIGATION

Organics Analysis - Amended Analyses

RESULTS

| Sample | 1,2 DCE* | Parts per Million Carbon Tetrachloride | Chloroform | 1,1,1 TCE* |
|---------------------|----------|-------------------------------------------|------------|------------|
| B6B (soil) | 0.014 | 0.047 | ND | ND |
| B6L (soil) | ND | 0.041 | ND | ND |
| B6O Organic Liquid) | ND | 0.06 | 0.81 | 2.08 |
| B6N (soil) | 0.11 | 0.12 | ND | ND |
| B6Q (water) | 0.0002 | 0.0002 | 0.0038 | 0.0202 |

B6O Composition, %

| | | | |
|------------------------------|------|------------------------------|------|
| Heptane | 12.8 | 2-Methylheptane | 5.6 |
| Xylenes | 9.1 | 2-Methylbutane | 1.5 |
| Octane | 3.96 | Pentane | 1.1 |
| Hexane | 3.8 | Cyclohexane | 0.98 |
| Methylcyclohexane | 5.4 | 4-Methyl-1-Pentene | 1.0 |
| 2-Methyl-1,4 hexadiene | 6.8 | 2,3 Dimethylbutane | 2.3 |
| 4-Methyl-1-hexene | 4.3 | 3-Methyl-2-pentene | 2.9 |
| Butane | 3.8 | 1,3 Dimethylcyclopentane | 1.7 |
| Ethyl Cyclopentane | 1.7 | 2,3 Dimethyl-1,4 -hexadiene | 2.3 |
| Methyl Cyclopentane | 3.1 | 1,3 Dimethylcyclohexane | 1.2 |
| 1-Ethyl-3-methylcyclopentene | 4.7 | 1 Octanol | 1.2 |
| 1,1,3 Trimethylcyclohexane | 5.1 | 1,2,3 Trimethylcyclohexane | 1.1 |
| | | 2,2,5,5 Tetramethyl-3-hexane | 1.5 |

* 1,2 DCE = 1,2 Dichloroethane

* 1,1,1 TCE = 1,1,1 Trichloroethane

TRUESDAIL LABORATORIES, INC.

Lab No. 02275

0840

Milligrams per Kilogram

| Sample | 1,1 Dichloroethane | Carbon Tetrachloride | 1,2 Dichloroethylene | Chloroethane |
|-------------|--------------------|----------------------|----------------------|--------------|
| A1-U-B1-10' | IS | IS | IS | IS |
| 22' | ND | 0.075 | <0.008 | ND |
| 32' | ND | 0.025 | 0.008 | ND |
| 40' | IS | IS | IS | IS |
| A1-V-B2 10' | ND | 0.067 | 0.10 | ND |
| 22' | ND | 0.057 | 0.042 | ND |
| 32' | ND | 0.075 | 0.065 | ND |
| 40' | ND | 0.082 | 0.12 | ND |
| A1-F10-MV2 | ND | 0.062 | 0.069 | ND |
| A1-F10-MV1 | ND | 0.14 | 0.16 | ND |
| A1-U-B1 | ND | 0.082 | <0.008 | ND |
| A1-F-B1- 4' | ND | < 0.0005 | 0.089 | 0.6 |
| 10' | ND | 0.055 | <0.008 | ND |
| 22' | ND | 0.041 | < 0.008 | ND |
| 33' | ND | 0.061 | < 0.008 | ND |
| 40' | IS | IS | IS | I: |
| A1-F-B2 10' | ND | 0.037 | 0.029 | ND |
| 23' | IS | IS | IS | IS |
| 32' | ND | 0.072 | 0.098 | ND |
| 40' | 0.099 | 0.069 | 0.047 | ND |

A1-F

Milligrams per Liter

TV: ~~Tetrachloroethylene~~
Perchloroethylene

28
653

B1-AM-B1

Total Petroleum Hydrocarbons mg/kg

3'
5'

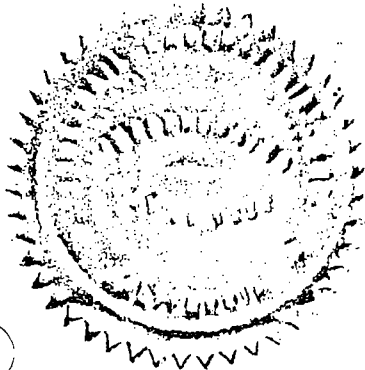
460
18,000

Soil containers from A1-T-B1 & B2 had insufficient amounts for analysis.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Richard D. Reid
Chief Water Chemist



DIRECTORY TANK INTEGRITY TEST RESULTS

LOCKHEED PLANT B-6

| TANK NO. | EZY-CHECK WORK SHEET NO. |
|----------------------------------------------|-----------------------------|
| B-6-F21 | 2 |
| B-6-F34 (See B-6-0 laboratory results) | 1 |
| B-6-N | 1 |
| B-6-U | 1 |

0840

DIRECTORY OF CHEMICAL ANALYSES:
RCQCB REQUESTED ACTIONS - LOCKHEED PLANT B-6

SAMPLE I.D.

LAB REPORT NO.

B-6-Q (82-T1)
(82-T2)

1754
1754

0840

EZY-CHEK WORK SHEET NO. 1

Company Name Dean Gregg & AssociatesContact John GreggAddress 18351 Beach Blvd.City, State Huntington Beach, California 92647

Telephone _____

Contractor Horner Creative Metals, Inc.Address 211 East Grove StreetCity, State Kawkawlin, Michigan 48631

| Tank# | Capacity | Diameter | Product |
|-----------------|---------------|------------|-------------------------------|
| <u>A-1-F 10</u> | <u>12,000</u> | <u>96"</u> | <u>Diesel</u> |
| <u>B-1-C</u> | <u>5,000</u> | <u>96"</u> | <u>Waste Water</u> |
| <u>B-6-U</u> | <u>6,000</u> | <u>96"</u> | <u>Motor Oil</u> |
| <u>B-6-O</u> | <u>150</u> | <u>30"</u> | <u>Gas & Diesel Mixed</u> |
| <u>B-6-N</u> | <u>550</u> | <u>38"</u> | <u>Waste Water</u> |
| <u> </u> | <u> </u> | <u> </u> | <u> </u> |

Tank Farm Location Lockheed California Company

Contact _____

Address 2555 N. Hollywood WayCity, State Burbank, California

Telephone _____

Operator David Parkhurst *David Parkhurst*Date May 31, 1985

Telephone _____

| High Test Results | Low Test Results | Certified Tight |
|-------------------|------------------|-----------------|
|-------------------|------------------|-----------------|

| | | |
|----------------------|------------|------------|
| <u>-.0018 g.p.h.</u> | <u>N/R</u> | <u>Yes</u> |
|----------------------|------------|------------|

| | | |
|---------------------|------------|------------|
| <u>-.009 g.p.h.</u> | <u>N/R</u> | <u>Yes</u> |
|---------------------|------------|------------|

| | | |
|----------------------|------------|------------|
| <u>-.0067 g.p.h.</u> | <u>N/R</u> | <u>Yes</u> |
|----------------------|------------|------------|

| | | |
|-----------------------|------------|------------|
| <u>-.00222 g.p.h.</u> | <u>N/R</u> | <u>Yes</u> |
|-----------------------|------------|------------|

| | | |
|----------------------|------------|------------|
| <u>+.0053 g.p.h.</u> | <u>N/R</u> | <u>Yes</u> |
|----------------------|------------|------------|

Remarks All of the above tank systems certified tight according to N.F.P.A. #329. Tank #A-1-F 10 is equipped with
a submerged pump. The product line should be disconnected and a separate hydrostatic line test performed.

0840

EZY-CHEK WORK SHEET NO. 2

Compnay Name Dean Gregg and Assoc.Tank Farm Location Lockheed California Co.Contact John Gregg

Contact _____

Address 18351 Beach Blvd.Address 2555 N. Hollywood WayCity, State Huntington Beach, CA. 92647City, State Burbank, CA.

Telephone _____

Telephone _____

Contractor Horner Creative Metals, Inc.Operator David ParkhurstAddress 211 East Grove St.Date 6-11-85City, State Kawkawlin, MI. 48631Telephone (517) 684-7180 or (818) 956-0608

| Tank# | Capacity | Diameter | Product |
|------------------------------------|----------|----------|---------|
| A-1-F8 | 12,000 | 96" | No Lead |
| A-1-F9 | 12,000 | 96" | No Lead |
| B-6-F ³ / ₂₁ | 550 | 32" | Regular |
| | | | |
| | | | |
| | | | |

| High Test Results | Low Test Results | Certified Tight |
|-------------------|------------------|-----------------|
| * see below | -.0235 g.p.h. | No |
| * see below | -.038 g.p.h. | No |
| -.0039 g.p.h. | N/R | Yes |
| | | |
| | | |
| | | |

Remarks Tank systems # A-1-F8 and A-1-F9 would not hold product above the top of the tank. I suggest that the tank to be uncovered and all visible leaks repaired. Retest the tanks after repairs are made. Tank system #B-6-F21 certified tight.

Analytical **Technologies, Inc.**

Corporate Offices: 225 W. 30th Street National City, CA 92050 619 477-4173

I.D. 01-001754

January 8, 1985

Gregg & Associates, Inc.
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Attention: Ed Baquerizo

Project: CALAC

Number: 84106

On December 5, 1984 Analytical Technologies, Inc. received thirteen (13) soil samples and one (1) water sample for analyses. Petroleum hydrocarbons were analyzed by extracting an aliquot of sample with freon, and analyzing the extract using infrared spectrophotometry, in accordance with EPA method 418.1. Volatile organics were analyzed using gas chromatographs equipped with Hall and photo ionization detector, in accordance with EPA methods 8010 and 8020.

Analysis of the water sample, B6-Q for volatile organics was not possible due to improper sample container.

ML:mat

John W. Strand
Support Services Manager

Reviewed by

Mark King
Laboratory Manager

Attachments

NOTE: Samples from this project will be disposed of in thirty (30) days from the date of this report, unless we are informed otherwise.

Gregg & Associates

I.D. 01-001754

PETROLEUM HYDROCARBON DATA SHEET

| <u>Soil Sample</u> | <u>Petroleum Hydrocarbons, mg/kg*</u> |
|--------------------|---------------------------------------|
| B6-82-T1 5' | 5.9 |
| B6-82-T1 10' | <1.0 |
| B6-82-T1 20' | <1.0 |
| B6-82-T1 30' | 26.8 |
| B6-82-T1 40' | 3.7 |
| B6-82-T1 65' | 11.9 |
| B6-82-T2 5' | 5.5 |
| B6-82-T2 10' | 17.9 |
| B6-82-T2 20' | 6.3 |
| B6-82-T2 30' | <1.0 |
| B6-82-T2 45' | 3.0 |
| B6-82-T2 60' | 2.3 |
| B6-82-T2 80' | <1.0 |

Water Sample

| | |
|------|-----------|
| B6-Q | 28% Water |
| | 72% Oil |

*(mg/kg) is milligrams per kilogram

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 5' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 10' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|-----------------|---------------------------|-----------------|------------------------|
| <u>< 0.2</u> | Benzene | <u>< 0.4</u> | Toluene |
| <u>< 0.1</u> | Bromodichloromethane | <u>< 0.2</u> | 1,1,1-Trichloroethane |
| <u>< 0.7</u> | Bromoform | <u>< 0.1</u> | 1,1,2-Trichloroethane |
| <u>< 0.1</u> | Bromomethane | <u>< 0.3</u> | Trichloroethene |
| <u>< 0.1</u> | Carbon Tetrachloride | <u>ND</u> | Trichlorofluoromethane |
| <u>< 0.8</u> | Chlorobenzene | <u>< 0.2</u> | Vinyl Chloride |
| <u>< 0.8</u> | Chloroethane | | |
| <u>< 0.2</u> | 2-Chloroethylvinylether | | |
| <u>< 0.1</u> | Chloroform | | |
| <u>< 0.2</u> | Chloromethane | | |
| <u>< 0.1</u> | Dibromochloromethane | | |
| <u>< 0.4</u> | 1,2-Dichlorobenzene | | |
| <u>< 0.4</u> | 1,3-Dichlorobenzene | | |
| <u>< 0.6</u> | 1,4-Dichlorobenzene | | |
| <u>ND</u> | Dichlorodifluoromethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethane | | |
| <u>< 0.1</u> | 1,2-Dichloroethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethene | | |
| <u>< 0.1</u> | trans-1,2-Dichloroethene | | |
| <u>< 0.1</u> | 1,2-Dichloropropane | | |
| <u>< 0.1</u> | cis-1,3-Dichloropropene | | |
| <u>< 0.1</u> | trans-1,3-Dichloropropene | | |
| <u>< 0.1</u> | Ethyl Benzene | | |
| <u>< 0.5</u> | Methylene Chloride | | |
| <u>< 0.4</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< 0.4</u> | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 20' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 1 30' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T1 40' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & AssociatesDate Collected: 12-4-84Sample I.D.: B6-82-T1 65'Date Received by Lab: 12-5-84Sample Matrix: SoilDate Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T2 5'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|-----------------|---------------------------|-----------------|------------------------|
| <u>< 0.2</u> | Benzene | <u>< 0.4</u> | Toluene |
| <u>< 0.1</u> | Bromodichloromethane | <u>< 0.2</u> | 1,1,1-Trichloroethane |
| <u>< 0.7</u> | Bromoform | <u>< 0.1</u> | 1,1,2-Trichloroethane |
| <u>< 0.1</u> | Bromomethane | <u>< 0.3</u> | Trichloroethene |
| <u>< 0.1</u> | Carbon Tetrachloride | <u>ND</u> | Trichlorofluoromethane |
| <u>< 0.8</u> | Chlorobenzene | <u>< 0.2</u> | Vinyl Chloride |
| <u>< 0.8</u> | Chloroethane | | |
| <u>< 0.2</u> | 2-Chloroethylvinylether | | |
| <u>< 0.1</u> | Chloroform | | |
| <u>< 0.2</u> | Chloromethane | | |
| <u>< 0.1</u> | Dibromochloromethane | | |
| <u>< 0.4</u> | 1,2-Dichlorobenzene | | |
| <u>< 0.4</u> | 1,3-Dichlorobenzene | | |
| <u>< 0.6</u> | 1,4-Dichlorobenzene | | |
| <u>ND</u> | Dichlorodifluoromethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethane | | |
| <u>< 0.1</u> | 1,2-Dichloroethane | | |
| <u>< 0.1</u> | 1,1-Dichloroethene | | |
| <u>< 0.1</u> | trans-1,2-Dichloroethene | | |
| <u>< 0.1</u> | 1,2-Dichloropropane | | |
| <u>< 0.1</u> | cis-1,3-Dichloropropene | | |
| <u>< 0.1</u> | trans-1,3-Dichloropropene | | |
| <u>< 0.1</u> | Ethyl Benzene | | |
| <u>< 0.5</u> | Methylene Chloride | | |
| <u>< 0.4</u> | 1,1,2,2-Tetrachloroethane | | |
| <u>< 0.4</u> | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 10'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 20' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 30'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 45' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 45' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>ug/Kg</u> | | <u>ug/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.5 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | i,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 3010 & 8020)

| | |
|---------------------------------------|--------------------------------------|
| Client: <u>Gregg & Associates</u> | Date Collected: <u>12-4-84</u> |
| Sample I.D.: <u>B6-82-T 2 60'</u> | Date Received by Lab: <u>12-5-84</u> |
| Sample Matrix: <u>Soil</u> | Date Analyzed: <u>1-2-85</u> |

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS

DATA SUMMARY

(EPA METHOD 8010 & 8020)

Client: Gregg & Associates Date Collected: 12-4-84
 Sample I.D.: B6-82-T 2 80' Date Received by Lab: 12-5-84
 Sample Matrix: Soil Date Analyzed: 1-2-85

| <u>µg/Kg</u> | | <u>µg/Kg</u> | |
|--------------|---------------------------|--------------|------------------------|
| < 0.2 | Benzene | < 0.4 | Toluene |
| < 0.1 | Bromodichloromethane | < 0.2 | 1,1,1-Trichloroethane |
| < 0.7 | Bromoform | < 0.1 | 1,1,2-Trichloroethane |
| < 0.1 | Bromomethane | < 0.3 | Trichloroethene |
| < 0.1 | Carbon Tetrachloride | ND | Trichlorofluoromethane |
| < 0.8 | Chlorobenzene | < 0.2 | Vinyl Chloride |
| < 0.8 | Chloroethane | | |
| < 0.2 | 2-Chloroethylvinylether | | |
| < 0.1 | Chloroform | | |
| < 0.2 | Chloromethane | | |
| < 0.1 | Dibromochloromethane | | |
| < 0.4 | 1,2-Dichlorobenzene | | |
| < 0.4 | 1,3-Dichlorobenzene | | |
| < 0.6 | 1,4-Dichlorobenzene | | |
| ND | Dichlorodifluoromethane | | |
| < 0.1 | 1,1-Dichloroethane | | |
| < 0.1 | 1,2-Dichloroethane | | |
| < 0.1 | 1,1-Dichloroethene | | |
| < 0.1 | trans-1,2-Dichloroethene | | |
| < 0.1 | 1,2-Dichloropropane | | |
| < 0.1 | cis-1,3-Dichloropropene | | |
| < 0.1 | trans-1,3-Dichloropropene | | |
| < 0.1 | Ethyl Benzene | | |
| < 0.5 | Methylene Chloride | | |
| < 0.4 | 1,1,2,2-Tetrachloroethane | | |
| < 0.4 | Tetrachloroethene | | |

VOLATILE ORGANIC ANALYSIS
DATA SUMMARY
(EPA METHOD 8010 & 8020)

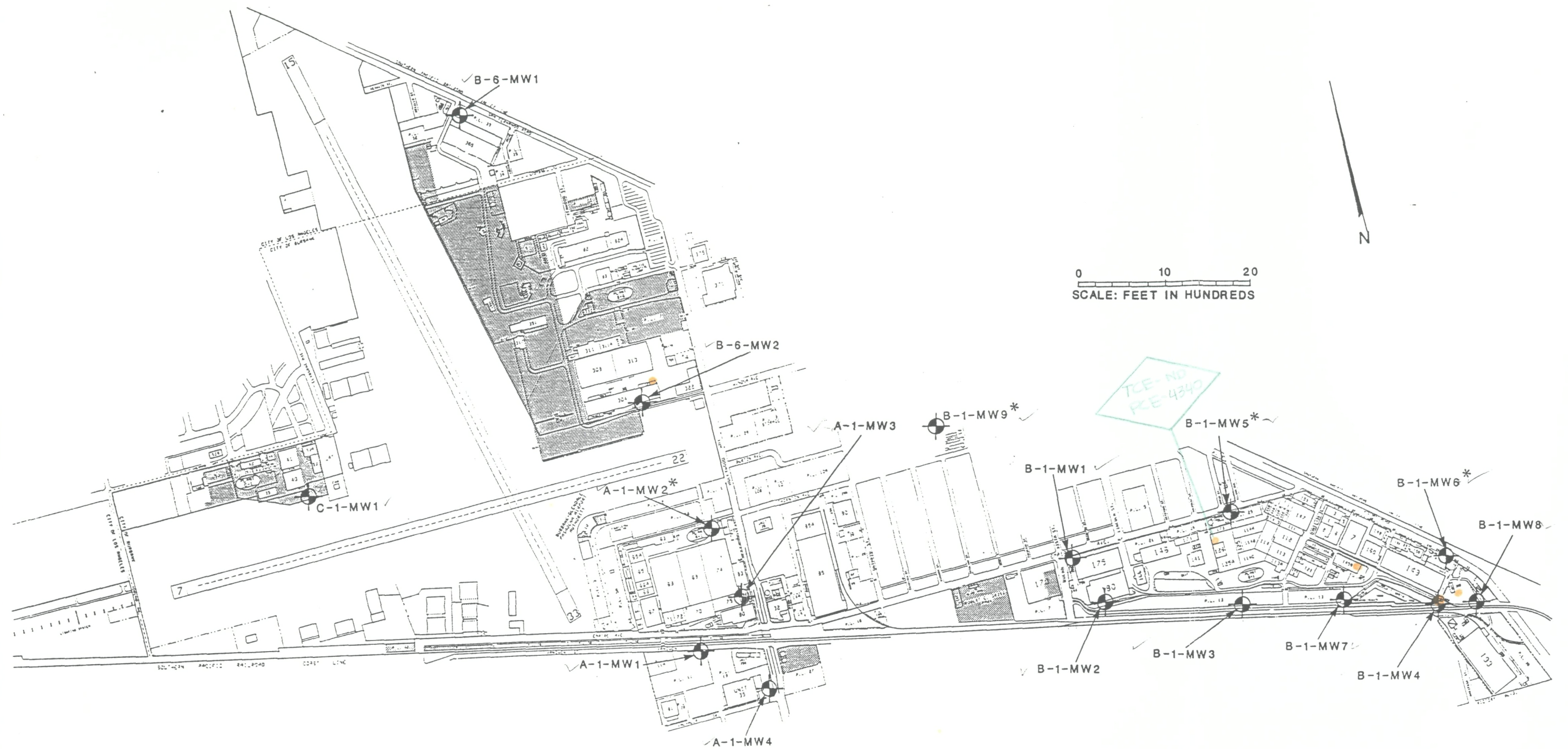
01-001754- SPIKE

Client: Gregg & Associates
Sample I.D. Spike
Sample Matrix: Soil

Date Collected: 12-4-84
Date Received by Lab: 12-5-84
Date Analyzed: 1-2-85

% Recovery

| | |
|---------------|--------------------------|
| <u>83.8</u> | Bromodichloromethane |
| <u>87.8</u> | Carbon Tetrachloride |
| <u>88.2</u> | Chlorobenzene |
| <u>88.1</u> | Chloroform |
| <u>84.4</u> | 1,1-Dichloroethane |
| <u>84.1</u> | 1,2-Dichloroethane |
| <u>87.1</u> | 1,1-Dichloroethene |
| <u>89.4</u> | trans-1,2-Dichloroethene |
| <u>89.5</u> | Tetrachloroethene |
| <u>88.9</u> | 1,1,1-Trichloroethane |
| <u> </u> | |
| <u> </u> | |



EXPLANATION:

- ground-water monitoring well
- * well installed during Phase 2 program



LOCKHEED AERONAUTICAL
SYSTEMS COMPANY
PROJECT NO 86-106-022

GROUND-WATER
MONITORING WELL
LOCATION MAP

11/87

FIGURE 5

0840

APPENDIX C
LABORATORY
REPORTS